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Papers

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INDEX TO VOLUME III.

PAGE
American Public Education 13
Art Education 73
,, Elementary 37
,, In Schools 215
Arithmetic, On Teaching. C. H. B. 132, 181
Astronomy, Preparation for the study of. S. A. G. 274

Black-board Exercises on the Propositions of Euclid 183

Candle, Philosophy of a. C. H. B. 58
Certificates of Merit, Examination for. R. R. 100, 128, 149, 199, 272
Chemistry, Notes on. C. H. B. 30, 59, 81
,, Organic. C. H. B. 182
Class Lists of Certificates of Merit 16
Correspondence 21, 38, 68, 93, 113, 141, 162, 193, 218, 238, 254, 283

Educational Intelligence 17, 63, 88, 109, 136, 160, 187, 207, 229, 251, 279
Education, Prospects of. C. H. B. 25
,, in Cape Colony 46
,, The Staple of 77
,, Compulsory. C. H. B. 245
Evening Schools. M. U. R. 97
Examination Papers for Pupil Teachers 96, 118, 142, 170, 244
Examination Papers of a Normal College 119, 143
Examination Questions for Certificates of Merit—Christmas, 1852 23, 40
Do. for Christmas, 1853 ...... 256, 287
Examination Questions for Candidates for Queen's Scholarships—Christmas, 1853 264
Examination Summary—Christmas, 1852 41
Extracts 46, 96, 146

Grammar, First Lessons on 6
Geography of England, Notes of Lessons on. R. Nos. VIII., IX., X. 8, 33, 60

Home Lessons. T. J. H. 221

Lessons, and Notes of Lessons—
The Vine. P. S. G. 8
The Pyrenees H. 35
The Llama. E. M. 61
The Teapot 82
The Butterfly 83
The Camel 158
Gutta Percha 184
Climate. I. 203
,, II. 227
,, III. 250

Minutes of April and August, 1853 195
Mission of the School, The. M. U. R. 247
Music—
The English Boy 12
Always Learning 44
Song for May 66
Prayer 86
The Lily 108

Music—
The Harvest Moon 166
Autumn 186
A Child's Evening Prayer 205
God's Presence everywhere 242

New Education Bill, The. T. B. 49
,, ,, ,, C. H. B. 147
New Supplementary Minute, The. C. H. B. 171, 244
,, ,, ,, ... 213, 244
Notes of Lectures—
I. The Teacher. G. 4, 54
II. Education. G. 176
On Teaching to Spell. R. Nos. I., II. 28, 52
Notes of Lessons. (Vide Lessons) 7
,, Brief Notices of, 106, 159, 204, 228
Notices of Books. R. 19, 42, 70, 91, 114, 140, 169, 194, 240, 255, 285
Numbers, Amusements in. C. H. B. 134, 153, 226

Outline Notes—
Mark i. 1—8 33
Mark i. 9—13 33
John v. 35 60
Animal Heat 103
The Creed (I believe in God) 155
Matt. xiii. 47—50...... 203
Outlines for Criticism—
Life of David 9
Separation of Abraham and Lot 35
1 Sam. xvi. 1, 14 61
Luke xiii. 69 84
Mark xii. 41—44 104

Paraphrase 286
Passion Week, Events of 11
Physics. T. B. 1, 31
Pleasures of the Schoolmaster, The. H. J. 123

Queen's Scholarships. C. H. B. 271

Reading, On. C. H. B. 196

Scripture Lessons—
2 Kings v. 20, 27. B. 7
2 Kings v. 1—4. C. H. B. 34
Gen. iii. (Fall of Man). S. T. L. 81
1 Thess. v. 8. E. T. S. 103
Luke xviii. 10—15. C. H. B. 135
The Unjust Steward 156
Sketches, and Notes of Lessons, and how to use them 278

The School, the Farm, and the Factory. M. U. R. 173
The Teacher's Gifts. H. J. 275

What is Style? H. J. 179

P. 4 R

PAPERS FOR THE SCHOOLMASTER.

No. 25. MARCH 1, 1853.

Physics.

The communication of knowledge occupies a large part of the work of the Teacher. The child enters school ignorant of the world outside into which he is shortly to pass, and for which he is there prepared. Hence it is needful to *instruct* his mind, i.e. to build up the foundations of knowledge within it. He has to collect those portions of the wisdom and experience which other ages have accumulated that are most useful for the daily affairs of life, and to make them his own. He has to learn how objects are named—what words mean and how they are combined to express thought. Historical records—the annals of his race and nation—the lives and actions of those who built the ruined castle on the hill or laid the crusader in the village church—the stories of the great and good of old—are still a sealed volume. But it is also most important for him to acquire the elements of another department of knowledge which is the special product of modern times, and which, it is probable, will attract increased attention in modern systems of instruction. He has still indistinct notions of the physical world on which he dwells—its shape and vast dimensions—its relative position in the universe—the seas and continents, mountains, forests, and rivers spread over its surface—its manifestations of animal and vegetable life—the invisible forces which pervade matter and the varied phenomena which they produce. Astronomy, Geography, Natural History, Physics, and other collateral sciences must be of interest and use to all, for they are concerned with the immediate system of nature in which we are placed and with which we have to deal. It is to the latter department of science we wish to call attention; in future papers we hope to furnish matter and suggestions as to the best mode of its presentation, which may prove serviceable to those engaged in elementary instruction.

One advantage which attends instruction in physical science is that it is well adapted to promote intellectual culture. In the communication of knowledge this purpose should always be kept in view. It is not sufficient merely to make the power of observation more ready and intense, or the memory more retentive, though these are important ends which may be served in scientific instruction. In working out the connexion between cause and effect in natural phenomena or philosophical instruments based on natural laws—as, for example, in the formation of dew, or the thermometer—the habit of induction and right reasoning is formed. And it will be observed that this reasoning has not to deal with abstract subject-matter, as in Grammar and Geometry, which presents great difficulties to children, but with actual objects and matters of observation. A child is most interested in knowledge which centers round that which is tangible and sensible. We are persuaded that if a Teacher will strive to enter into the child's processes of thought, and lead him, step by step, along the path of patient investigation, encouraging his own efforts, and guiding him to results rather than acquainting him with them, this subject will be found one of the most efficient in the range of school-instruction for promoting mental activity and clear habits of thought.

Again, we believe that natural science may be so communicated as to aid the development of the child's moral and religious life. The vast grandeur of the material system, and the innumerable vestiges of stupendous power and skill which it displays, are surely adapted to call forth humility and reverence—both essential elements of high moral character. And there can be no discrepancies, as some have thought, between the lessons of science and religion. What God has made manifest to His creatures in the outward world cannot oppose what He has disclosed in the revelations of His will. But it is possible, we believe, to endanger earnest and childlike religious belief by thoughtless instruction in this and other subjects. We have not only to tell those whom we instruct of natural laws, forces and phenomena; we must seek to connect these with the Almighty Lawgiver and lead their thoughts upwards to Him whose wisdom and mercy are over all His works. Religious education does not consist merely in dogmatic instruction, though the Christian Teacher will never withhold those revealed truths in which the highest destinies of the human race are involved; but it seeks to penetrate all culture and instruction with a religious spirit. Thus history should remind us of God's providence over the world, and lead us to see that monarchs and nations, statesmen and peasants, are responsible to Him as its universal Governor. And, in the same manner, we should endeavour to associate religious feeling and thought with instruction on the physical economy which surrounds us. To those who see aright science teems with evidences of the infinite power and benevolence which have furnished this wonderful scene in which we dwell and adapted it to human wants.

Natural Science, moreover, supplies instruction which will serve practical ends in after-life. It is most important for us to keep in mind the circumstances of those whom we educate. School-instruction should be adjusted in relation to future necessities. The manifold industrial applications of science in modern times will render general instruction in its principles more and more a practical want. In all schools *realities* will be more taught, and abstract instruction diminish. "At a period," it has been said, "when the competition of industry has become the competition of intellect, it has become necessary to instruct populations in the knowledge of natural forces. The fact is every day more apparent, that mere muscular labour, in the present state of the world, is little better than raw material, and that both these are sinking in value as elements of production, while nervous and intellectual labour is constantly rising. The whole of industrial competition is now resolved into a struggle to obtain a *maximum* effect by a *minimum* expenditure of power. But this power is derived from natural forces, and not from brute strength: mental labour has engrafted itself upon muscular effort, and, by a healthy growth, has reduced the size and relative importance of the latter. Every new acquirement in the knowledge of natural forces is the acquisition of a new sense, which may be applied to production; and as every substitution of a natural force for muscular exertion depends upon a knowledge of the former, it surely requires no argument to prove, that the economical application of it must rest upon a perceptive and not merely empirical knowledge; or, in the language of the Wise King of Scripture, "If the iron be blunt, and we whet not the edge, then must we put to more strength; but wisdom is profitable to direct."*

* Industrial Instruction on the Continent, by Lyon Playfair.

Notes of Lectures delivered to a Normal Class.

I. THE TEACHER.

I. His Office.—The importance of an office is not always to be measured by the character of those who sustain it, or by the amount of pecuniary recompense attached to it, but by the nature of the trusts and interests which it involves. Judged by this rule, how important is the office of the Teacher. What trusts are so great or what interests so important as those committed to him?

The *developement* and *culture* of the mind constitute an important function of his office. For this object the plastic nature of childhood is entrusted to his care, in which marvellous faculties and affections lie hidden and undeveloped. The minds of children are capable of an expansion and growth which would fit them for noble pursuits and extensive usefulness, but, if these are uncultivated, their condition rises little above that of the brute, and existence remains a blank. They are placed in the midst of a scene, containing a thousand sources of the most exquisite delight, which will be opened or sealed to them as the eye of their mind is lighted by intelligence or glazed by ignorance. There is nothing within the range of science which they may not make their own—no level which the most gifted minds have reached to which they may not attain. But success or failure, progress or retrogression, depends mainly on the culture they receive at the hands of their educators.

The *formation of right habits* by those committed to him forms another part of a Teacher's duty. They will form habits, which will be the charm or the curse of the social circle, which will make them instruments of good or evil to their fellow men, and blessings or pests to their country, and whose results will extend into another life. What sort of habits they shall form, depends to a certain extent on their Teachers. "They," says Mr. Symons, "are moulding the character of the generations among which we and our children are to live, and by which our highest interests here must be determined." To a certain extent this is true, but not entirely. The Teacher is only one of many who are thus moulding the character of the youth of our nation. Other influences besides *his* surround them; amongst these stand prominent the influences of home and those of the streets—influences which are sometimes powerful enough to neutralize all that the Teacher can exert.

Nevertheless the Teacher does exercise a powerful influence on the habits and character of his young charge. There is the direct influence of his teaching and discipline, though there is more power in that which is incidental and indirect. "The personal character of the master," it has been said,* "produces a continual effect. In a certain sense he is teaching always, and often when he least thinks of it. The lessons which he gives insensibly are perhaps the most availing of all, and it is hardly too much to say that what he conveys, without being conscious of it, has a deeper effect than what is taught more formally. He is constantly imparting his own likeness, reproducing in the minds of his scholars the impressions and convictions of his own. A silent influence is at work which he little suspects. The words which drop unobserved from his lips, the acts which he performs mechanically and immediately forgets, his daily habits and deportment, have their effect, and may be made subservient to the highest ends. The very way in which his school is managed, its order and impartiality, the tone of kindness which pervades it, the reverence openly paid to what is good and true and generous, are so many parts of moral training." It is by these influences that the habits and character of children are formed. They are more powerful than direct teaching, as lessons only enforce what is right, but example allures to the practice of it.

But it must not be forgotten that personal influence may be for evil as well as good. Children imbibe the spirit of their Master. They will not be industrious if he is indolent, punctual if he is laggard, nor truthful and honest if he only cares for appearance. If, for example, his school is energetically worked and maintained in good order in the presence of visitors, but becomes indolent and loose on their departure; if there be special preparation for Government Inspectors or Public Examinations; if in a word there be an attention to appearances more than to truthfulness, then the influence of the Teacher is of a most injurious and evil character.

But the importance of his office is enhanced by the consideration that children are committed to the Teacher, when the mind is most pliable and the character most impressible. The powers are not yet developed nor the habits fixed; consequently the character is not formed. Almost any impression can now be made on the mind—almost any feature delineated on the heart. A child is so susceptible of impressions, and so open to the influence of circumstances, that if these were right, and his educators were skilful, his character could almost be moulded for him. But this state does not last. "Some stones when first quarried are so soft and pliable as readily to take any form you may wish to impress upon them, but so harden by lapse of time, as almost, at any subsequent period, to render impossible any further change." So it is with man. His heart feels less and his conscience yields less as childhood gives place to youth, youth to maturity, and maturity to age.

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*The Church Schoolmaster.

Again, that intellectual cast, moral tone, and impartation of himself which we have described are not, it must be remembered, confined to the schoolroom, but, like the ever widening circles produced on the surface of a lake by a drop of rain, spread themselves around until the labours and the influence of a Teacher are felt through society at large.

How important then is that office, which involves interests so vast, and has to do with mind and character at so critical a period. And of what moment it is that you who are so soon to go forth on the great mission of Education should do so with no light estimate of its importance and with no careless feeling as to its results.

G.

First Lessons on Grammar.

LESSON III. ON THE ADJECTIVE.

To develope the idea of an *Adjective*, present to the minds of the children a variety of objects in succession and point out their several distinctive qualities. This apple is—*rosy;* that child is—*little;* the clock is—*round*. The words representing these qualities are to be written on a black-board in columns. When the children are sufficiently impressed with the idea that a large class of words express quality or kind, proceed to shew their proper position in a simple sentence. Do this by reuniting such sentences as were placed on the black-board on the preceding lesson. The *Birds sing. Magpies chatter.* Enlarge the sentences by introducing the new words which express the quality or kind; pretty *little* birds sing. *Merry* magpies chatter. The term *Adjective* may be now given. It signifies *added*, and is added to the name in order to point out the quality of the noun. The ingenuity of the children may be further tested by requiring them to complete such sentences as the following, which clearly require an adjective: "—— streams make little noise." "—— horses run the fastest." The adjectives *deep*, and *large* may be suggested by asking the questions, *what kind* of streams make little noise? Let the children be proved to understand the nature of this part of speech, by producing examples of them before they proceed to another.

LESSON IV. ON THE ADVERB.

To develope the idea of an *Adverb* recur to the class of words called Verbs which convey the notion of *doing* and then obtain from the children simple sentences as in the last two lessons. *Dogs eat. Birds sing.* Ask the question how the action is performed—*how do* *dogs eat*? and *how do birds sing?* The words which answer the question must be written on the slate or black-board in a column. Dogs eat—*fast, greedily, quietly, rapidly.* Birds sing—*sweetly, gently, happily, beautifully,.* Shew that these words are closely connected with the *verbs*, and as soon as the idea is embraced give them the term *ad-verb.* Now proceed to practise them upon the application of all they have learnt. First ask for a simple sentence—*Birds sing.* Secondly, the sentence increased by an *adjective—Happy birds sing.* Thirdly, by an *adverb—Happy birds sing sweetly.*

Adverbs may also be shewn to express not only particulars of *manner* in regard to the verb, but also of *time* or *place.* Such adverbs will be answers to the question, *when* or *where*, instead of *how* the action was performed? The children may write upon their slates answers to the question *when* or *where* do birds sing? Answer—*to-day, now, above, often, always, early.* Adverbs should also be shewn to express some particular about the *adjective* as well as verb. July is *remarkably* fine. Jane is a *very* good child

Notes of Lessons.

The preparation of Notes of Lessons is one of great and growing importance, yet, being of recent origin, many Teachers feel great difficulty in satisfactorily performing this part of their duty. To aid them in doing so, we have been frequently requested to publish such specimens as we might deem models in their subject-matter and mode of preparation. We have hesitated to comply with this request, partly because of the great variety of subjects which the elementary Teacher has to handle—each, it may be, requiring a distinct method, and partly from the great dissimilarity in age and attainment which exist amongst the children of our schools, each class requiring an order of development peculiarly its own. We have, however, at length determined to make the attempt, and propose to insert each month, *first* what may be deemed model *outline* or *full* Notes, as far as the circumstances of the case may admit; *secondly*, to give a Criticism on the "Notes of a Lesson," for the purpose of making more evident than can be done by any other means, what are the principles upon which they should be drawn up; *thirdly*, to insert as heretofore specimens from Correspondents, in order that our numerous subscribers may have the opportunity of witnessing the methods of other teachers, though drawn up it might be on principles which we could not approve.

Outline Notes on II. Kings, V. XX, XXVII.

FOR CHILDREN FROM 5 TO 7.

I. Introduction.

Explain the phrase—"Spared Naaman." Notice the value of a talent: £342. 2s. 9d. Change of garment an Eastern token of respect and affection—Gen. xlv. 22.

II. Lesson.

1. Gehazi's master a Prophet—Gehazi was hence favourably situated for knowing the will of God. His conduct, therefore, the more to be condemned. Mark *the beginning of his sin*, v. 20.

2. Gehazi running—Naaman alighting—the *lie*—the property carried and stowed away—*the sin completed*, v 21-24.

3. Gehazi in the presence of his master—another lie; *one sin leads to another.*

4. Elisha's knowledge of the transaction—Gehazi had forgotten that his master was a Prophet—*Sin blinds the mind*—compare Gen. iii. 8; and Jonah i. 3.

5. Gehazi and his children lepers—*Sin brings punishment*—His punishment would remind him of his sin—this in mercy.

III. Application.

1. Beware of the *first* sin; we know not to what results it may lead.

2. Punishment is *certain;* no sin can be hidden from God.

Geography of England, No. VIII.

MANUFACTURING TOWNS.

Cotton.—The cotton towns are found mostly at a moderate distance from Liverpool—the great cotton port, why? The same district supplies abundance of iron and coal, both for machinery and for working it. The great cotton town is Manchester;—the following are to be pointed out by the children, and the position of each named:—Ashton, Oldham, Rochdale, Middleton, Bury, Bolton, Wigan, Chorley, Preston, Blackburn, Clitheroe, Colne, Garstang, Warrington, Lancaster, Stockport, Macclesfield, Carlisle, Wigton, Belper, and Holywell.

Woollen.—The woollen towns are found in the sheep districts—in the pastures of the West Riding, and in the West of England. The woollen manufacture wants the aid of coal and iron, though not so much as the cotton. The centre of this manufacture in the north is Leeds, and in the west, Trowbridge. The other woollen towns in the north are Bradford, Huddersfield, and Halifax; in the west, Bradford, Frome, and Stroud.

Flannel.—This manufacture is partly in the same districts as that of woollen cloth. Point out Rochdale, Halifax, Shrewsbury, Welshpool, and Dolgelly. Witney for blankets, and worsted at Bradford in Yorkshire.

Hosiery; at Nottingham, Leicester, Loughboro', and Hinckley.

Carpets; at Worcester, Kidderminster, Wilton, and Axminster.

Silk; at London, Macclesfield, Coventry, and Manchester.

The Vine.

I. Its History.
II. Its Cultivation.

I. Its History.

1. When first an object of culture, is unknown; the earliest notice of it Gen. ix., 20. The Egyptians affirmed that Osiris was the first to teach men its cultivation and use; other Africans ascribe the same thing to Bacchus.

2. Its fruit early formed an offering in religious services. Gen. xiv. 18;

at a later period this use of it appears to have been enjoined. Num. xv. 4-10.

3. The first country in Europe in which it was cultivated was Greece, whence it spread westward. At an early period it was introduced into England where it was extensively cultivated by eclesiastics, but since the Reformation its culture has been neglected.

4. The culture of the vine extends from Portugal to Persia, and from 21° to 50° N.L., over an area of about 2,000 square miles.

5. About 8,000 tons of dried grapes or raisins are imported into England annually. Undried grapes, packed in sawdust, are also imported—chiefly from Portugal.

II. Its Cultivation.

1. The training of the vine is not a uniform process. In France, Switzerland, Germany and Greece, the common method is to train them on poles about three or four feet high. In Italy they are trained to the sides of the houses, while in Persia they are trained to walls and allowed to run along the top.

2. The method of propagation is by cuttings, which are planted yearly.

P. S. G.

Outline Notes on the Life of David.

(FOR CRITICISM.)

I. Sketch of his Life.

1. Son of Jesse of Bethlehem—Type of Christ—first, in that he was a shepherd; second, in that he was anointed King.

2. Slew Goliath—persecuted by Saul—when Saul who sought his life was on two occasions in his power, he did not hurt him.

3. Fled to Achish and settled at Ziglag. When a man brought to him Saul's bracelets, saying that he had slain Saul, he had him put to death as a regicide.

4. Made King over Judah and Benjamin. Then over all the tribes. Was successful in his wars. When inactive and idle at home, while his army was in the field, he fell into temptation, committed a great crime, which was followed by a series of crimes. Condemned himself, repented and was pardoned. Sinned in numbering the people, and was punished by a pestilence.

II. Abstract of points to be dwelt upon and lessons to be drawn from them.

1. David set an example of trust in God, in his slaughter of the lion, the bear, and Goliath.

2. He set an example of love and mercy to our enemies in that he hurt not Saul when he was in his power.

3. David's putting the regicide to death, because he had slain the "Lord's anointed," teaches us that we ought to respect whatever is of God.

4. David's fall furnishes the following distinct lessons :—

(*a.*) A caution and warning against idleness.

(*b.*) When we fall into sin, we know not where we shall stop. After we have committed a wilful sin, we are less prepared to resist temptation.

(*c.*) Sin and sorrow are inseparably connected. God's justice will overtake those who do wrong, assuredly if not now, in the world to come. But, as in the case of David, those who commit sin are often punished in their persons and families in this world.

4. David repented and was forgiven, though he was punished temporally ; hence the duty of repentance.

In the Notes of a Lesson on the life of a Scripture character, as above, a Teacher may propose merely to give the incidents of the life, with such lessons as are fairly deducible from them; or he may propose to bring out prominently the character of the individual, making use only of those incidents which are best adapted to his design. In either case a distinct method must be pursued. In the former the Biography would furnish *a series* of ordinary Narrative Lessons, which might be treated on the same principles as that on Gehazi in the present number. In the other case, the Teacher has another and quite distinct object in view than to furnish the biographical facts; his design is to bring out the leading feature in the individual's character, and from that to deduce the practical lessons it is intended to convey. In this case, an acquaintance with the incidents is supposed. In the first case, the lessons might be addressed to any section of the school; in the latter, only to the upper one.

Looking then at the Notes before us, we find neither of these objects kept distinctly in view; but in fact a combination of both. First, we have a very fair array of the events in the life of David; if, however, it is the Teacher's purpose to give the children an acquaintance with these events, we hesitate not to say that his design could not be accomplished effectually in half-a-dozen lessons, but if the design is, as we think it should be, to present vividly the character of David then this array of facts is unnecessary. Then, in the second division, we have several distinct lessons drawn from particular facts in his history. Here again we have more attempted than the children of any standing could properly receive—a little and well being much better than much and ill. Again we fail to recognise any leading principle of David's character to which these particular features may be attributed.

The chief deficiencies, then, of these Notes, as far as the matter is concerned, we conceive to be the following:—

1. There is no proper recognition of the class of children for which the lesson is intended. This is the first thing requiring attention, as by this, in a great measure, the entire methods of treatment and arrangement must be determined.

2. There is not a vigorous grasp of the leading principles of David's character. This is *the* defect of the Notes. The life should be so thoroughly studied, as to give a clear insight into the character, and then the purpose should be graphically and vividly to place it before the children.

3. The great design of Scripture Biography does not appear to have been fully apprehended It is not so much a history of individuals as of human nature; hence each character has its counter part amongst ourselves, and should therefore be so delineated as to lead the conscience of a child to apply the great lessons it teaches to its own heart and practice.

Other defects, chiefly those of arrangement, might be pointed out had we more space.

In conclusion, it is but fair to say that these "Notes" show fair powers of analysis in the writer, and, at the same time, a great desire to draw practical instruction from the incidents discussed.

THE EVENTS OF "HOLY OR PASSION WEEK."

1. *Palm Sunday.*—The return of Jesus from Bethany, where, in the house of Simon, the leper, Mary had anointed Him with the ointment of spikenard. The triumphal entry into Jerusalem. The weeping over the city and the cleansing of the Temple. Certain Greeks are brought to Him. Christ returns to Bethany.

2. *Monday.*—Jesus returns to Jerusalem, and on His way curses the barren fig tree. Again He visits the Temple and drives out the buyers and sellers. The Scribes and chief Priests seek to destroy Him ; He leaves the city.

3. *Tuesday.*—Passing to Jerusalem on this day, He sees the barren fig tree withered. Is questioned in the Temple by the Scribes and elders. He speaks these parables—The father and his two sons—The vineyard let out to husbandmen—The marriage feast and wedding garment. He is tempted by the Herodians, Sadducees and Pharisees in succession. The eight woes are pronounced. The poor widow offers her mite. On leaving the Temple He foretells the destruction of Jerusalem and the end of the world. He speaks the parables of—The ten virgins—The talents—The sheep and the goats. This night was spent on the Mount of Olives.

4. *Wednesday.*—Jesus Christ foretells His betrayal and crucifixion. Counsel is taken against Him by the chief priests. Judas promises to betray Him for thirty pieces of silver.

5. *Thursday.*—The Passover prepared by the disciples and eaten with them. Jesus washes their feet. He gives the cup to Judas, warns Peter and foretells his denial of Him. The Sacrament of the Lord's Supper is instituted. The Comforter is promised. A hymn is sung and they go out to the Mount of Olives. On the way He discourses of Himself as the Vine—bids them prepare for persecution. Jesus now prays that they may all be one. Peter is again warned. James, John, and Peter sleep. The Agony. Judas betrays the Lord. Peter strikes off the ear of Malchus. The disciples flee. Christ is led away to Annas and Caiaphus—is examined, insulted, buffeted and spit upon. *After Midnight.* Peter denies his Master.

6. *Good Friday.*—Early in the morning.—Jesus is led to the High Priests and Council, and He confesses Himself to be the Son of God. Judas repents and hangs himself. The Lord is led bound to Pilate, sent to Herod, who mocks Him and sends Him back to Pilate. He is declared innocent—the Jews cry "Crucify Him" and prefer Barabbas. Jesus is scourged and delivered to be crucified. In the common hall He is crowned with thorns, mocked, spit upon and smitten.

Nine o'clock.—He goes forth bearing His Cross, is taken to Golgotha, where wine and myrrh, gall and vinegar are offered to Him. Here they crucify Him between two malefactors. He prays for His murderers. The soldiers part His garments. He is derided. One of the thieves confesses his sins.

Twelve o'clock.—Darkness over all the earth. He is watched by His mother, her sister, and the other two Maries.

Three o'clock.—He cries with a loud voice, refuses the vinegar, commends His spirit to His Father, and bows His head, and gives up the ghost. The veil of the Temple is rent, and many graves open. A soldier pierces His side.

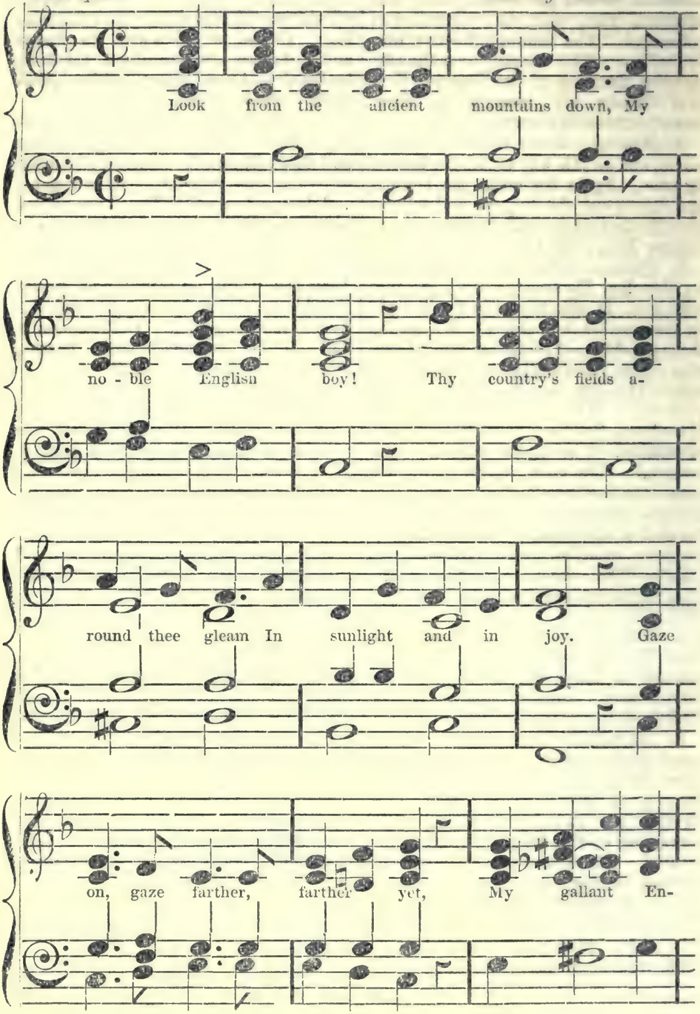
In the evening.—The body is buried by Joseph and Nicodemus. The women prepare spices and ointments.

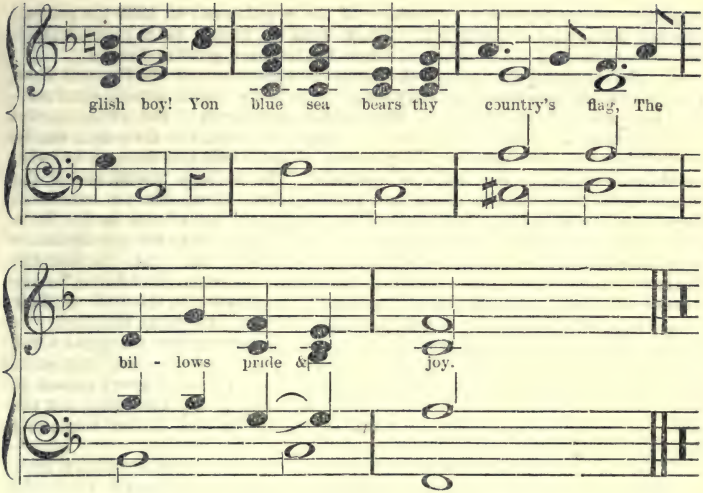
7. *Saturday.*—They rested the sabbath day. His body lay in the sepulchre. His soul "descended into hell." A guard of soldiers are set to watch.—*Condensed from "Tracts for the Christian Seasons."* W. J. L.

The English Boy.

Words by Mrs. Hemans.
Music by G.F.B.

With spirit.


Look from the ancient mountains down, My
no - ble English boy! Thy country's fields a-
round thee gleam In sunlight and in joy. Gaze
on, gaze farther, farther yet, My gallant En-



II.

Gaze where the Hamlets' ivied Church
Gleams by the ancient elm,
Or where the Minster lifts the cross,
High through the air's blue realm.
Martyrs have freely bled, my boy,
That England's prayer might rise,
From those grey fanes of bye-gone years,
Unfetter'd, to the skies.

III.

Along their aisles, beneath their trees,
This earth's most glorious dust,
Once fired with valour, wisdom, song,
Is laid in holy trust.
Lift up thy heart, my English boy!
And pray, like them to stand,
Should God so summon *thee* to guard
The Altars of the land.

AMERICAN PUBLIC EDUCATION.

Mr. Edward Baines has published a reply to the writer of the American Address which was noticed in our last number. In his reply, which will interest those engaged in elementary education, he examines the statements of the Address, and shows that the case made out against England and in favour of the State of New York has not been fairly put. We place before our readers an analysis of Mr. Baines' reply, and some extracts from it.

The American writer adduced our own Parliamentary returns to show that only one-eleventh of our population were under instruction. Mr. Baines reminds him that these returns (the Earl of Kerry's of 1833) are just twenty years old, and were proved to be defective when taken. Since 1833 a great extension of education has taken place, as the results of the Census of 1851 will doubtless show. He expresses his belief that the proportion of scholars to population will prove to be at least one in eight. The Queen's Letter just issued shows that the number of scholars in connexion with the National Society has greatly increased. The returns obtained by Lord Brougham in 1818 gave a proportion of one scholar to seventeen of the population; in 1833 the proportion was one to eleven and a half. These returns, though both were probably defective, show that the increase of education has been great and rapid.

Mr. Baines next shows that the latest census-returns of the State of New York only claim one fourth of the population as in the public schools—not one-third as is stated in the Address. But, further, one-fourth of the whole—as the census-returns show—attended school less than two months in the year; nearly one half less than four months; 70 per cent. of the whole less than six months, and only 30 per cent. six months or upwards! The average attendance of the pupils is only four months and a half in the year. If we take ten months in the year as a reasonable school attendance, the school attendance in the State of New York would be only equivalent to about one in nine in the population,—something below the education of England. Or, if we take into account the children in the private schools, and in the schools for coloured children, as returned in the census-tables, the whole amount of education in the State of New York would be about the same as Mr. Baines estimates it to be in England.

The reply next asserts that the American school returns are ambiguous and delusive, and that it is impossible to determine from them the real amount of education, or the real number of children educated. There is every reason to believe that the children returned are not so many different children, but the same children attending for short terms at different schools. The Education Report shows that this is not mere conjecture.

"There is reason to believe that many of the children reported to have been taught, attended school but a very short time during the year. If a child attends school a day, or even half a day, in the year, his name is entered upon the teacher's list, and he is reported as having been taught. When the pupil, by the removal of the parents to another district, or for any other cause, is transferred during the year from one district school to another, his name is again entered upon a teacher's list, and he is again reported. In the city, and in some of the villages, this frequently occurs."—*Annual Report of the Common Schools for the State of New York*, *Jan.* 1845.

It is stated that in the Lowell schools, from this incertitude in the returns, a greater number of children has been sometimes reported as in the schools than the whole number of children in the district. It appears also that in some States there are "summer schools" and "winter schools," often taught by different teachers, and only for a short time; and that a large error in the returns has hence arisen. It may be safely asserted that the amount of education and the number of children educated falls far short of what would be supposed from the returns.

Mr. Baines considers therefore that while the extent of education in England has been underrated, that in the State of New York and the best educated American States has been exaggerated. He shows also that the instruction in the American Schools is irregular, and that the returns mislead us in the matter at issue. He next admits that the period of school-life in America is longer than with ourselves, and points out the greater educational facilities which exist there.

"On the ground of these facts I deny that the children of New York receive a greater amount of schooling than the children of England; though I do not deny that the schooling is spread over a greater number of years, and still less that, from the cheapness of books, newspapers, &c., in America, and from the circumstances of the people, the Americans are able to retain their education better than the English. Their opportunities of practising the arts of reading, writing, &c., are much more numerous than with us. I might enlarge much on the mighty difference between the social condition of the English and the

Americans, owing to the unlimited supply of land, and the scope for every kind of industry, in a new country. But my space merely allows me to add, that the proportion of the labouring class is very small in America, compared with the proportion in England; whilst the number of land-owners and capitalists engaged in trade or manufacture is very much larger with you than with us. Of course the means of educating children depends very mainly on the circumstances of the parents, and therefore education in America ought to be longer and more universal than in England."

Our next extract adverts to the position of the teachers in the State of New York

"But there is a feature of your system which it is of the utmost importance to look at, in judging of this question. You boast of the large State grants for education in New York, and speak scornfully of the pittance granted by the Government in this country. Let us, then, test this assumed liberality towards schools. What is the position of the teachers in the State of New York? We have the latest and most undeniable testimony on the subject, from the Message of the Governor and the Report of the Superintendent of Common Schools, each issued within the present month. The Governor states that the 'amount paid for teachers' wages' in 1851 was 1,681,316 dollars; and the Superintendent of Common Schools states the number of teachers to be 25,500. Divide the wages by the number of teachers, and it appears that each teacher receives on the average sixty-seven dollars, or £13. 8s. per annum! This would be a payment of 5s. 2d. per week, if they were engaged for the whole year; but if they are only engaged for two-thirds of the year, (thirty-five weeks,) it would be 7s. 8d. per week; and if they are only engaged half the year, the wages would be 10s. 4d. per week. Now, here are two facts of tremendous import disclosed; namely, 1st, That the teachers of the State of New York receive a remuneration much below that of ordinary manual labour; and 2d, That they are only engaged a small part of their time in teaching, and of course that they are mere temporary teachers, mere make-shifts, teaching for a few months, and then turning to some more profitable employment. Are these my inferences? Read the following extract from the Report of the Superintendent of Common Schools for the State of New York, the ink of which is scarcely yet dry. He says:—

"'Few estimate sufficiently the importance of teachers as a class, and their influence on society.' 'Ridicule of teachers constitutes one of the stale jokes of literature.' 'Prejudice against this occupation, in our country, is as unjust as it is impolitic.' 'How often has even the breath of suspicion fallen on the moral character of one of the twenty-five thousand common school teachers of New York?' 'No class of men excel the teachers of New York. And it is notorious that none, where the extent of their duties and responsibilities are taken into consideration, are so inadequately paid. Beyond a few cities and large villages, the wages paid to teachers do not equal those of any class of operatives, whose occupation demands any previously acquired dexterity.

"'It is common to urge the necessity of establishing a professional class of teachers—a class of teachers for life. This most desirable result cannot be obtained at present rates of remuneration, and there are no indications of a sufficiently favourable change in the latter particular, to justify any hope in the future—or at least until long years to come—except in the few wealthy localities already alluded to. Our teachers, as heretofore, must be mainly drawn from those who are preparing ultimately to engage in other pursuits. The State, as heretofore, must be satisfied with qualifying, so far as practicable, a temporary class of teachers. It is a necessity which admits of no alternative, but the entire degradation of our schools. Nor is the necessity a hard one, when the vast sums lavished by Government on comparatively trivial objects are taken into consideration. In matters relating to education, if any where, the policy of a republican State should be liberal.' "

Mr. Baines concludes thus:—

" Into the question of the grand defect of your schools, in excluding religious instruction, for the sake of obtaining the concurrence of all religious denominations, I do not now enter, because that point is not raised in your letter; but I assure you that if your secular education were ten times better than it is, the people of England will never consent to adopt a system, which either openly excludes religion, or which, (like that of Massachusetts, where the old principles of the Pilgrim fathers are tacitly abandoned,) professedly gives religious instruction, but really gives none."

We think that Mr. Baines has taken too large an estimate of the extent of public education in England. His conclusion that the proportion of scholars to population is at least one in eight seems little more than conjectural. And it is right to remember that school-statistics are almost inevitably delusive in England as well as in America. We suspect, for instance, that a large number of the children returned as in the schools connected with the National Society are only attached to the Sunday Schools, and cannot be regarded as under regular daily instruction. But Mr. Baines' reply has done good service. He has shown that the ratio of scholars to the English population is higher than the American address has put to our credit, and is, without question, on the increase. And his incidental notices of education in America, as well as his valuable analysis of the school-returns in the State of New York, are of much interest and deserve to be placed on record.

Educational Intelligence.

EXAMINATION OF TRAINING SCHOOLS, CHRISTMAS, 1852.

CLASS LIST OF CANDIDATES FOR CERTIFICATES OF MERIT.

BATTERSEA.

I. CLASS. *1st Div.*—J. Hewitt. *2nd Div.*—J. M. Rutland; J. M. Smith. *3rd Div.*—J. W. Marriot, (M.); W Bryant; T. Daffen; W. Davey; T. Owen.

II. CLASS. *1st Div.*—R. Leich; F. R. Lowe; J. Martin; F. Millar; R. W. Nelmes; H. Stevens. *2ud Div.*—J. W. Causier; E. Loader; J. Noble. *3rd Div.*—J. W. Denhurst; W. F. Ives; B. Olivant; H. Poyner; T. Whitehead; G. W. Perry.

III. CLASS. *1st Div.*—G. Marsh, (M.); S. Vaughan, (M.); H. G. J. Arnold; C. Hardesty; J. Long; J. L. Saxton; W. C. Wallace; B. Witham; W. F. Wood. *2nd Div.*—V. Hall; E. Adams; J. M. Condell; H. J. Downing; G. M. Fenn; F. Martin; F. Ramsay; J. Richardson; S. J. Taylor; G. Tricker; P. Wager; J. Yelland. *3rd Div.*—H. Newland, (M.); W. Baden; R. A. Burck; W. J. Cruft; R. Hewitt; J. McAndrews; J. Webb.

The successful candidates were 51; 8 in the 1st class, 15 in the 2nd, and 28 in the 3rd.

CHELTENHAM.

(MALES.)

I. CLASS. *2rd Div.*—G. H. Gibson, (Q.S.) *3rd Div.*—F. Cooper, (M.); S. Bethell, (Q.S.); E. W. Brereton, (Q S.); A. Cooper; H. Edsor; T. C. Hatton; T. J. Haworth, (Q.S.); E. Kennedy; J. R. Rockett; F. Tucker; W. White; H. Wilkins.

II. Class. 1st. *Div.*—W Beale, (Q.S.); F. Cole; G. Davies, (Q.S.) J. Edmondson; J. Graham; T. C. Harding, (Q.S.); H. W. Makins, (Q.S); E. T. Stevens; J. J. Wilkinson. *2nd. Div.*—E. Pellow, (M.); J. Bond; W. Crow, (Q.S.); J. Hancock, (Q.S.); W. Harris; G. Peploe. *3rd. Div.* G. Ayres; A. Hodges; H. Robins; H. V. Saunders; (Q.S.); C. Sexty.

III. Class. 1*st. Div.*—E. Hackwood; J. Udale; P. R White. *2nd. Div.*—W. R. Percival, (M.); J. K. Slater, (M.); J. B. Chick; H. Howard; J. Kay; G. Pritchard, (Q.S.); R. Rastall; W. G. Smith; J. Wood. *3rd Div.*—H. J. Millard, (M.); T. Wray, (M.); A. Spary, (M.); H. Newman; W. H. Salome; T. Westland.

The successful candidates were 51; 13 in the 1st class, 20 in the 2nd, and 18 in the 3rd.

(FEMALES.)

I. Class. 1*st Div.*—I. L. Reynolds, (M.) *3rd Div.*—H. F. Salter; L. Wilkins.

II. Class. 1*st. Div.*—G. Nelson; *3rd Div.*—F. Daveney, (M.); M. Clarke, (Q.S.); C. Harding.

III. Class. 1*st Div.*—E. Knapp; M. A. White; *2nd Div.*—A. T. Ford, (M.); M. Chubb, (Q.S.); H. J. Fisher; L. Searle. *3rd Div.*—E. Howe, (M.); A. Price, (M.); M. Bathe, (Q.S.); H. Bunday; H. Cooper; E. Handy, F. Millward; S. Plumley; H. Suffolk.

The successful candidates were 22; 3 in the 1st class, 4 in the 2nd, and 15 in the 3rd.

Government Educational Proposals.—The present Administration seems disposed to take active measures in the general promotion and improvement of Education. It has announced propositions which, it anticipates, will tend to further elementary instruction. It proposes to invite the attention of Parliament to the Reports which have been made by the late commissions relative to the Universities; and it is obvious that the superior private schools and the large public schools will have to modify their courses of instruction, if any considerable changes take place in the system and scheme of studies pursued in the Universities. An educational measure for Scotland is also announced.—We extracted into our last number the remarks which were made by the Premier on Education when stating the general views of the Government. A more definite intimation on the subject has since been given by Lord John Russell in his programme of the business of the present Session. It depends on the progress of other measures how soon the proposals to which he adverts will be brought forward. He said: "The next subject upon which I intend to lay certain propositions before the House—propositions, however, which I will not bring forward until the estimates to which I have alluded shall have been voted—is the important question of Education. (Hear, hear.) I will not endeavour to excite false expectations by saying that I am about to produce on the part of the Government a very vast plan upon that subject. But I shall make proposals which, if they are adopted, will, I think, tend very greatly to further and promote Education—a subject which impresses itself more and more upon the minds of all those who consider the future destinies of this country (hear, hear), and which in every respect, whatever opinions we may entertain, whatever plan we may think the best, is a subject which I think must be considered one of the very highest importance. (Hear, hear.)" There is no reason to apprehend that the proposals of the Government will interfere with the principle or machinery under which the Educational grant is now administered. It is to be hoped, however, that some arrangement will be devised which will allow the aid of the Educational Committee to be extended to those districts which are unable, under present conditions, to claim it, although it is there most needed.

THE SOCIETY OF ARTS.—This Society has taken the subject of popular education in hand, and proposes to collect information as regards educational foundations, and to show that it is necessary for them to adopt new subject-matter in their scheme of instruction. It observes of the needs of the present system:—"They are needs which the improvement of our ancient educational foundations, and the adaptation of existing institutions, might be made in a great degree to supply. Little of solid advantage is now to be derived from those ample funds which the munificence and the sagacity of our forefathers in no stinted measure appropriated, under the name of Free Grammar Schools, for the teaching of the elements of the only knowledge then in being,—a munificence and sagacity which their descendants on the other side of the Atlantic have justly appreciated in founding schools in which the modern requirements of society are amply provided for. They have profited by the example. With us the teaching has remained nearly stationary, while our knowledge has been almost infinitely augmented."—Their purpose is to show that art, science, and industry might be taught in the grammar-schools. It is well known that these institutions were founded for the children of the poor. At that time grammar was the main subject of instruction. This is no longer the case; and it seems to accord with the spirit of their trust-deeds that they should be adapted to meet the wants of a new social condition. The Committee named in the section "Industrial instruction" observes that "if the friends of social improvement will now come forward, and merge their minor differences and matters of detail in the recognition and adopton of the great cardinal principles which should rule the developement of this great phase in our social progress, success may be achieved." The result of their inquiries will shortly be published.

DEPUTATION OF SCHOOLMASTERS.—INTENTIONS OF THE GOVERNMENT.—A deputation of Schoolmasters waited on the Lord President of the Council, at the Council-office, on Saturday, Feb. 19th, to present a Memorial from the church schoolmasters and schoolmistresses of England and Wales, against the alterations made during last year in the minutes of Privy Council of 1847, respecting the management of schools. The memorialists stated that they did not desire any arrangement which should interfere with the due influence which the clergy should exercise in the education of the youth of their parishes, but they believed that the minute issued by the late Government allowed an exercise of arbitrary power in the clergy which was unjust, and certain to evoke feelings of distrust between the clergyman and the teacher. They believed also that other consequences of the provisions of that minute will be to degrade the teacher to a mere instrument of the clergy,—to make far more uncertain than it now is the situation he holds,—to exclude from the profession men of educated mind and feeling;—and thus to defeat those beneficial measures of the Privy Council, which have hitherto tended to induce men of superior attainments and aptitude to undertake the office of teacher, and so to raise the character both of popular education and of the schoolmaster.

Earl Granville, in replying to the deputation, stated, that immediately after the publication of the altered minutes by the late government, Lord Lansdowne, in the House of Peers, objected to the administration of the educational grant under that minute, as being contrary to the conditions upon which it had been granted. The late Government promised to keep the minute in abeyance till a further educational grant was asked for. The present government had taken the subject into consideration, and his Lordship stated that the committee of council would not come to any light decision on the matter. Very shortly Lord John Russell will lay before the House of Commons the intentions of the government, which will embody the subject of the memorial. The noble lord considered it was the duty of the Committee of Council to listen to any grievances from schoolmasters, being fully assured that they would not base them on any frivolous grounds. His lordship regretted that any difference should arise to make the clergy less anxious in assisting to carry on the work of education; and he thought it due to the schoolmaster, in the laborious duties he had to undertake, that the government should assist in every way they could to raise his social position.

Miscellaneous.—The Educational Committee of the Privy Council has met several times within the last month.—A deputation from the local Committee of the Manchester and Salford Education Bill has had interviews with the Administration. The deputation was introduced by Sir J. K. Shuttleworth.—The School of Design has been removed from Somerset House. Instead of one central School of Art, district Schools will be established in several parts of the Metropolis. This arrangement, it is expected, will effect a great public improvement, and will extend facilities for teaching drawing in parochial schools.—We observe that a pamphlet on "Public Education, as affected by the Minutes of the Committee of the Privy Council from 1846 to 1852, with suggestions as to future policy: by Sir J Kay Shuttleworth" has been announced.—It is stated that a Committee of inquiry into the whole subject of education in Ireland will be moved for in the present Session.—A course of lectures is now being delivered in the Metropolis by Prof. Robert Hunt to working men at the Museum of Practical Geology. The charge for each course of six lectures is sixpence. The applications for admission were most numerous, and hundreds were refused for want of space to receive them. This shows that where able well-arranged lectures on science are offered, the industrial classes are prepared to avail themselves of the instruction which they supply. The fragmentary knowledge which has been imparted in single lectures by the Mechanics Institutions has been of little use. It is evident that these Institutions have failed to effect the purpose for which they were designed, and which their name implies. Their lectures need better matter and more scientific arrangement.—In a circular which has been sent by the Commission to investigate the condition of the Cathedral and Collegiate Churches to the several Chapters, it is inquired whether any endeavour to found a Training School for parochial masters in connection with the Cathedral has been made, and with what success.

NOTICES OF BOOKS.

The Synoptical Euclid.—First Four Books.—By Samuel A. Good.—London, C. H. Law.—To a mind previously disciplined the study of demonstrative Geometry may not present great difficulty—in some cases there seems even an intuitive perception of the relation between premises and conclusions; but in the majority of instances the opposite is true, and great difficulty is felt in laying hold of the several steps in a demonstration, and still more in preserving them in their proper order. We suppose that every one accustomed to teach Mathematics has met with many instances where the attempt to master the reasoning in a demonstration has been given up as hopeless, and the learner has been driven upon the laborious and unhappy expedient of "getting off" the entire demonstration by rote, without in the least apprehending the chain of deduction. Now, generally, this does not arise so much from a want of power to grasp the individual steps in the progressive reasoning, as from the difficulty felt in readily laying hold of, and retaining them in their synthetic arrangements. Within our knowledge elementary Teachers have felt this difficulty so great with their apprentices, that they have written out for their use the whole of the demonstrations, on what we conceive an improved method, giving to each step in the demonstration a separate line, and marking out most distinctly the order of the steps by which the ultimate conclusion is arrived at. It may be that Mr. Good has felt the same difficulty; certain it is, that in this edition of Euclid the idea is put into a permanent form, and—as far as we have tested—with correctness. For pupil teachers who rarely read beyond the First Four Books, this edition will present great attraction, and will, we are sure, economise their labour, by presenting to the eye, as well as the intellect, a clear and impressive arrangement. We recommend this book to all parties about to commence Euclid, or who find in its study great difficulty.

History of Greece. - *History of Rome.—By R. W. Browne, M.A., (Gleig's Series.)—London, Longman & Co.*—These are both good epitomes, and better deserving of commendation than many histories of greater pretensions. Whether for the purpose of communicating first ideas, or as presenting a good summary to be used in revising a larger course of reading, they are alike valuable.

The Teachers' Monthly Magazine.—Scripture Notes on the New Testament, Part IV.—Church of England Sunday School Institute.—The Teachers' Magazine contains the right kind of matter to profit the class of persons for which it is written. The Bible Lessons for class teaching are particularly appropriate, as are also the short articles on the Festivals and Fasts of the Church of England. For those Teachers who have but scanty libraries the "Scripture Notes" will prove a valuable aid. The distinction drawn between the principal and secondary lessons to be deduced from a particular narrative is founded on a correct principle, and is one which Teachers will do well carefully to observe.

The Manchester and Salford Education Bill. - *Simpkin & Co.—The Case of the Manchester Educationists.—By John Howard Hinton, M.A.—London, Snow.*—Our space will not allow us to do more than direct those interested in the Manchester scheme to these sources of information. The object of the former pamphlet is to prove that the Bill is infidel in its principle and dangerous in its teaching; of the latter, prepared under the direction of the friends of Voluntary Education, to review the evidence taken before a Committee of the House of Commons, which is done with considerable tact and fulness.

Bible Class Magazine for 1852. *Child's own Magazine for* 1852. *Sunday School Union.* Among the numerous results growing out of the increased facilities in this country for obtaining elementary instruction, the development of an intellectual appetite is not one of the least, either in extent or importance. The immense sale of trashy and debasing literature has already caused no small anxiety to the friends of education, and this kind of reading bids fair to increase, both in its circulation and pernicious effects. We think that educationists have not been so energetic as they might have been in making suitable provision for the intellectual wants which they have created. Practically the case stands thus—the educationist undertakes to create the appetite; how it shall be satisfied is left nearly altogether to private speculation. The result is, in too large a number of cases, that the intellect is supplied with a positively poisonous aliment. The Sunday School Union deserves praise for its efforts to do something to provide suitable reading for the young. The "Bible Class Magazine" is full of matter—all of it interesting, instructive, and suggestive of moral influences. We recommend it cheerfully. The "Child's own Magazine" has the same object in view, but with an adaptation for young children; it contains effective stories and facts, told in a simple manner; slight but suitable pieces of verse; and two or three pieces of music for little people, besides illustrative wood-cuts. We wish the effort good success.

Sunday School Teachers' Class Register and Diary for 1853. *Sunday School Teachers' Class Register for* 1853. *Sunday School Union.*—It will be observed that the first of these books differs from the second, only by the addition of a Diary. They contain lists of lessons, a calendar, class register, and register of attendance, besides other matter and blank forms suited to the necessities of a Sunday School Teacher. The arrangements are good, and the books respectably got up. A Register of this kind we consider to be essential to every Teacher who desires to work with comfort to himself, and benefit to his class.

Correspondence.

Sir,—R. V. asks for "an easy and simple method of teaching the Numeration *Table* to children of the average age of seven;" supposing R. V. to mean Numeration, or the first steps in forming ideas of the relative value of numbers, I send a sketch of the plan I used with my fifth class, containing thirty-six boys, aged from six to nine, which may be of service to him.

The children were able to count twenty; the next step was to teach them to know and to write the signs which are used to express number. When they could do this, i.e. write on their slates the figures which expressed—one finger, two fingers, &c., through the nine digits, my next endeavour was to give them the notion of the relative value of numbers.

I procured a quantity of peas, beans, and nuts, to stand respectively in the place of units, tens, hundreds; brought my blackboard, table, &c., before my class, and determined to make them understand what a unit was; that one ten was worth ten units, and one hundred worth ten tens.

Placing some peas on the table, I took up one and told them that, because I held but *one*, therefore it was called a unit; two were two units of peas; and so on. I varied this by holding up *one* finger, which was therefore a unit; so *one* form was a unit; till at last they knew one *anything* was one unit; two *anythings* were two units, &c.

Back to my peas. I made them count ten as I placed them singly on the table. To make them see that ten units are equal to one ten, I took out a bean, and told them that bean was to represent the value of ten peas—so that if a boy did not want peas, he might have *one* bean by giving *ten* peas for it: twenty peas for two beans, and so on (perhaps their first idea of relative value or exchange); or calling each bean *a ten*, and using the term unit for every pea, it was, they told me, changing *units* into *tens*.

Here I examined them to see if all clearly understood so far; and went over it again to enlighten those still in the dark—knowing that if this notion of exchange was not properly and firmly fixed in the heads of my little merchants, it would be useless to proceed.

The next step from *tens* to *hundreds* was comparatively easy. Making the nut to represent the value of ten beans—so that, if a nut were worth a half-penny, so would be ten beans, and then, giving the nut the name of *hundred*, I counted out three or four lots of ten beans, each, and asked them how many nuts they would give me for them. And then, referring to the name given before to the beans, viz., *tens*, they told me I was turning tens into hundreds.

I recapitulated; and placing peas, beans, and nuts on the table, made the boys exchange the one for the other, till I felt sure they understood me.

Now I brought my blackboard to my aid. I drew two perpendicular lines dividing its surface into three equal parts, which I called places; the right hand place for peas or units; the middle for beans or tens; the remaining place for nuts or hundreds, and chalked U. T. H. over the respective divisions. Having placed some peas—say 13—on my table, they told me I could get one bean for ten of them and should have three left, so I placed the figure 3 which represented the number of peas or units in the U place—the figure 1, for the bean in the T place, and then they told me *one* in the *Tens'* place, with three after it, in the Units place, stood for 13 peas; and so on with the hundreds.

In this, i.e. in writing units, tens, and hundreds on the board, and on their slates, I exercised them for two or three weeks, till they were quite "au fait" at writing from notation any number of hundreds, tens, and units.

Then I divided my board as before, but with different headings over each place—U for units—Th for thousands—M for millions, and by an extension of my former plan, and by teaching them that there were units, tens, and hundreds of thousands, as also of millions; and by working plenty of examples before them on the board; they were soon able to write down any numbers correctly from notation.

NESCIUS.

SIR,—One of your correspondents asks for the experience of a Teacher who has successfully conducted the training and studies of a Pupil teacher through his whole course. I beg permission to state that I have done so, and that last Christmas my apprentice obtained a first class scholarship at a Training College. I gladly give a simple outline of my mode of proceedings through the whole term.

There is not much difficulty in the first and second years' examinations, hence I did not strictly adhere to the prescribed limits laid down in the "broad-sheet," but extended his studies further than is stated there. But I always took care to be carefully grounded in the elementary branches, before proceeding to anything else not stated on the sheet. I began during the 2nd years' training to take him through Euclid's first book, making it interesting to him on the black board, so that by degrees, he became quite familiar with the most essential propositions in the four books, By having a knowledge of Euclid, he was able to understand clearly the principles and reasons of the most useful and practical portions of Mensuration. It was impossible to lay down beforehand the exact requirements that might be made, but my plans always led me to push beyond the mark rather than confine myself to the sheet—which I always regarded as my minimum. The work of Mr. Tate is good for giving practical illustrations and demonstrations—as for instance at pages 31, 35, 37, &c., where he gives the demonstrations of the rules for the Rectangle, Triangle, and Trapezoid respectively. My pupil teacher had some work to do in solids, such as to find the solidity of the cone and pyramid. I made him thoroughly master of the principal figures. I after all laid more stress on Scripture, Liturgy, Grammar, Geography, and Arithmetic than on Mensuration. I endeavoured,as nearly as possible, to attach the most importance to those subjects which are regarded by H. M's. Inspector as the most essential. The books which my pupil teacher used for Mensuration, were Tate, Nesbit, and Castle's Surveyor's Text Book; I put him through Chamber's Algebra as far as simultaneous equations. I taught him the principles of Arithmetic one night, of Mechanics on the second, and of Algebra on the next. E. M.

[This reply is not so satisfactory as we could have desired; too much is attempted, and hence the force of the whole is weakened. Had our correspondent attempted to state distinctly how he managed to get up his pupil in *one* subject, we are sure he would have greatly benefitted many of our readers. We should feel under an obligation to any of our subscribers who would be at the pains of sending to us a clear but concise account of the plans pursued by them in working their pupil teachers through any individual subject. We should feel the more obliged if such accounts were sent by those whose pupils have gained respectable scholarships.]

SIR,—In answer to the 2nd question of your correspondent, who signs himself "G," I would beg to suggest to him a plan which has been used for securing the regular sweeping of the school, where no remuneration is allowed:—Out of the scholars in regular attendance, four or six were chosen every quarter, whose parents were in very indigent circumstances; the children thus chosen were exempted from paying any school-money and were known as "Free Scholars." It was their duty to sweep the school and dust it, one boy taking it one week, and another the next, and so on. We thus secured the regular sweeping of the School, lighting the fires and other little matters, throughout the year.

A. W. G.

SIR,—Will you, or any of your readers, oblige me by stating what is the best work, at about 3s. or 4s., on Electricity; and *how to make Electrical apparatus*.

A.

J. J. would feel obliged to any reader of the "Papers for the Schoolmaster," who could inform him whether there is any law which exempts a Schoolmasters' House from rates; and if so, what the precise conditions are, upon which such exemption can be claimed.

GENERAL EXAMINATION OF TRAINING SCHOOLS, CHRISTMAS, 1852.

(CONTINUED FROM NO. XXV.)

ALGEBRA.

DIVISION I.

Sect. I.

1. Add together, $2(a+b)xy^2$, $3(a-2b)xy^2$ and $2(2a-b)xy^2$.

2. From $(a+b)x+(b+c)y$, take $(a-b)x-(b-c)y$

3. Prove that $(a-b)(x-a)(x-b)+(b-c)(x-b)(x-c)+(c-a)(x-c)(x-a)$ is equal to $(a-b)(b-c)(a-c)$.

Sect. II.

1. Reduce to their simplest forms

$$\frac{a+b+\frac{b^2}{a}}{a+b+\frac{a^2}{b}} \text{ and } \frac{a z^2 y}{b x^{\frac{3}{2}} y^{\frac{3}{2}}}$$

2. Multiply $(3+\sqrt{-5})$ by $(2-\sqrt{-3})$.

3. Reduce to its simplest form

$$\frac{1}{x-1+\frac{1}{1+\frac{x}{4-x}}}$$

and find the square root of $13+2\sqrt{3}$.

Sect. III.

Solve one of the following equations:

1. $$4(x-1)-\frac{x-1}{2x}=3\tfrac{3}{4}.$$

2. $2x^2-x-2x\sqrt{1-x^2}=1\frac{1}{2}$.

3. A farmer buys a flock of sheep at the rate of £7 for every 5 sheep; he afterwards loses 9, and sells the remainder at the rate of £16 for every 11, and the sum for which he sells the flock is £24 more than that which he gave for it: how many sheep were there?

DIVISION II.

1. A blank paper book containing 48 sheets is sold for 15s., and another containing 78 sheets of the same size for 19s.; the binding cost the same in both, and the paper was of the same quality. What was the price of the binding?

2. A rectangular field is to be enclosed from the waste with a fence 40 chains long; it is to be surrounded within the fence, by a gravel walk 6·05 yards wide; and there is to be left in the middle an area of 6·05 acres of grass. What must be the dimensions of the field?

3. $$\frac{1}{x^2+3x+5}+\frac{1}{x^2+6x+8}+\frac{1}{x^2-9x+7}=0.$$

4. Find what sum of money at r per cent, compound interest, will amount in n years to £a; and find the number of years in which a sum of money will double itself at r per cent, compound interest.

5. What annuity, to commence at the end of two years and to continue two years certain, can be bought for £1000, allowing 5 per cent, compound interest.

6. If the present population of Great Britain be thirty millions, and the annual emigration—supposed to take place at the end of the year—be one quarter of a million, by what proportion must the number of births in each of the next two years exceed the number of deaths, that the population may have increased at the expiration of that time by one-twentieth?

HIGHER MATHEMATICS.

DIVISION I.

Sect. I.

1. Find the common difference of a series in arithmetical progression, whose first term is 8, and the sum of the 8 first terms 28.

2. Find the present value of an annuity of £A to be paid for n years, allowing compound interest.

3. Required the vulgar fraction equivalent to the decimal ·PQQQ, &c.; where P contains p digits, and Q contains q digits recurring *in inf.*

Sect. II.

1. Prove generally the rule for pointing off in the product of two decimal numbers as many decimals as there are in the multiplier and multiplicand together.

2. Define the logarithm of a number and shew that

$$\log._{10}\left(\frac{m}{n}\right)=\log._{10} m-\log._{10} n$$

3. What is meant by the *radix*, and what by the *digits* of a scale of notation? What is the number which is expressed by 2 4 3 1 in the scale of notation, where radix is 5? Prove the rule for expressing a number in any scale of notation.

Sect. III.

1. Prove one of the following formulæ of plane trignometry:—

$$\text{Cos }(A+B)=\cos A \cos B-\sin A \sin B.$$

$$\text{Sin } \tfrac{1}{2} A=\sqrt{\frac{(S-b)(S-c)}{b\,c}}$$

2. How might the height of the top of St. Paul's above Wimbledon Common be determined by observations made on Wimbledon Common, from whence St. Paul's can be seen?

3. By what means can the distance from one another of two remote objects, C and D, be determined by observations taken from stations A and B, whose distance from one another is known, and whence the objects C and D are visible? Give the formulæ which must be used in this computation.

Sect. IV.

1. Investigate an expression for the area of a triangle in terms of its sides.

2. Prove the expressions for the circumference and area of a circle in terms of the radius.

3. Shew that the solid content of a cone or pyramid is found by multiplying the area of its base by one-third its height.

DIVISION II.

1. Find the sum of the series $1^2+2^2+3^2+$ &c. to n terms.

2. Find the number of combinations of n things taken r together, and shew that it is the same as the number of combinations of n things taken $\overline{n-r}$ together.

3. Prove the binomial theorem in the case in which m is a positive integer, and expand $\left(a^{\frac{1}{4}}-b^{\frac{1}{4}}\right)^4$.

4. Shew by the method of indeterminate coefficients that

$$\frac{x+1}{x^2-7x+12}=\frac{5}{x-4}-\frac{4}{x-3}$$

5. Solve the equation

$$x^3-441x+2430=0.$$

6. Expand a^x, and deduce from the expansion an expression, in a converging series, for the logarithm of a number to the base a.

PAPERS FOR THE SCHOOLMASTER.

No. 26. APRIL 1, 1853.

Prospects of Education.

There is a general opinion gaining ground that there will be, or that there ought to be, over a Board of Education for Great Britain, a Minister of Public Instruction From their antecedents we naturally look to the Marquis of Lansdowne, or Lord John Russell. The success of the existing provisions has been so rapid that it admits of a doubt whether the present machinery is adequate to the work that is being carried on. The Minister of Public Instruction would find sufficient occupation, not only in the enlargement of such machinery, but in the solution of that most urgent problem—how can aid be extended to those districts which, being unable to aid themselves, are excluded from the operation of the Minutes of 1646. The delicate task will fall upon him of adjusting a plan of relief to destitute districts, which shall not dry up the sources of of voluntary zeal which have been opened out by the present system. It will belong to him to determine how far a case of destitution is made out, and whether a poll-grant might not be the most satisfactory method for apportioning the amount of assistance to be afforded out of the Public Grant for Education. Her Majesty's Inspectors would be naturally the persons to report upon such Educational destitution. A School supported by the State must be conducted without reference to Denominational views, and the most unobjectionable system would seem to be the one now adopted by the British and Foreign Schools, and by the Glasgow Normal Seminary before it was identified with the Free Church of Scotland.

The supreme end which the advocates of religious Education have to keep in view, is the character of the Teacher. No attainments and no denominational zeal can compensate for this. Practical men will tell the theorist that, *as* is the Teacher, *so* will be the Education, the Children, the School.

School-houses may be built as so many practical protests against ignorance through the efforts of zealous men, or by Government Grants, but the moral, yea and to a great extent, the material benefits of Education will depend upon the fitness of the character of those to whom we entrust it. This is true as far as mere Instruction is concerned. Instruction is an art, and as in every other art, no amount of natural genius will justify the neglect of study and preparation. There are great principles to be mastered, as well as new methods, and constantly occurring improvements to be examined. But the Educator is far more than an instructor. He has to take the place of the Parent, and become responsible for the discharge of Parental duties. This principle demands the chief consideration in the digest of any national scheme. It is agreed by Rulers of Christian States that Education must include religion. Continental countries recognise this necessity, but they regard religion in the light of a *subject of instruction,* and provide for this as other subjects, in its turn. The English conceive the idea that religion is not some distinct thing, like a subject of *instruction,* but that it is a golden thread which interweaves itself through the entire network of *Education.* But although the English idea is not a prejudice, but a great truth, yet our countrymen are perhaps too prone to reason about it, as if it *were* after all nothing more than a matter of instruction. What is due to this opinion is simply to provide that Teachers shall be religious men, for it is of more importance that Teachers should be of a religions spirit, and that they shall not by example contradict the dogmas of Christianity which the children may learn from their Pastors, than that they shall be entrusted with the dogmatic teaching themselves, and yet be void of all real religious impressions. England would have little cause of complaint, if any general system could be employed, which provides and requires, like the German system, distinct dogmatic teaching, and at the same time could secure, through local committes of management composed of Ministers and the representatives of Churches, Teachers who are men of religious spirit. If there went abroad juster views of the meaning of religious Education, much of the mist that clouds men's views would be dissipated. Men will differ upon abstract religious truths. Dissenters and Churchmen will adopt different views upon

Church discipline, and what is more to our purpose, upon the tendency of abstract doctrines to draw out or mould the religious character. But all religious men should see that it is the character of the Teacher that will be the law of the School, and that he will himself be the life and spirit of all his lessons. We must rise above the points on which we differ, if a national scheme is ever to be applicable to England. We must not surrender our religious instincts and prepossessions, but we must ascend from the details of instruction in which we differ and unite in the broader views which we take of our duty to a Christian child. That child is a physical, a moral, an emotional and an intellectual being, and that is the best ideal of national Education which, while it provides for distinctive dogmatic teaching, in conformity with the views of the childrens' parents, commits their Education to men who believe that Christianity alone has met the wants of a child in the whole complicity and perpetuity of his being. Unquestionably the way of introducing a national system would be infinitely smoother, were all Englishmen of the same mind in regard to religious opinions, but under existing circumstances it may become a question, whether it is possible that the same provision can be made, as in Germany, for religious *instruction*, as in every other department of exact teaching, and whether the zeal of religious men had better not be directed to the springs of Elementary Education—the Training Schools or Colleges which are charged with the formation of the character of the future Teachers. It is less by means of positive doctrines, however important it is that every child should learn them, than by the thousand evidences in the manner, the tone, or the look of the Teacher, whether expressed in an anecdote, a hymn, or a lesson on the outer world, that he shews that he fears God and is animated by the *spirit* of earnest zeal and enlightened piety.

Notes of a Lecture on Teaching to Spell, I.

The art of correct spelling, though it has too often assigned to it a low place in the list of necessary acquirements, is yet one of considerable value, both for its own sake, and the part which instruction in it may be made to serve in mental discipline. It is not necessary to show that correct orthography is expected of all those who make any pretensions to education; this is sufficiently evident from the remarks made on such as have failed to attain it. An American Schoolmaster, speaking of its value in mental discipline, justly observes, "It is of importance in the education of the young, as it leads to habits of accuracy in other things, in which the want of accuracy might be far more fatal to our own interest and happiness. He who is exact and careful in trifling matters seldom, if ever, fails to be so in more momentous concerns."

As there are many modes pursued in teaching this branch of instruction, it will be convenient to notice them separately.

I. The Alphabetical mode.

The use of the spelling-book or dictionary was all but universal till a few years since, when it began to give way to more rational and profitable methods. The fatal and unanswerable objection urged against it was that though much labor was consumed, but small results followed. This arose out of the structure of the text-book, which contained only columns of words of a certain number of syllables, in the order of the alphabet. Hence it happened that those words in daily use received no more attention than others not likely to be used half a dozen times in a life time. The only redeeming feature in the spelling-book was that it did to a certain extent help in the reading; the words were so often looked at for the purpose of getting off the spelling, that in ordinary cases the word was recognized again in a reading lesson. Still, with a full allowance for this advantage, it was trifling compared with the time consumed in its acquirement, and hence this method is now discarded in all good schools.

II. Sentence-Spelling, or Method of Oral Dictation.

This method of spelling consists in the dictation of every word, whether long or short, composing an entire sentence, and has this advantage—that it repeats in every lesson those words which are most current in the language. Every scheme of instruction should be so drawn that this exercise may be connected with the reading lesson, "as the *viva voce* spelling of entire sentences, as dictated by the Teacher, forms a good exercise for the attention and memory, as well as in spelling."

When words are to be spelt from the Teacher's dictation, it will require on his part considerable care in their enunciation; as, unless this is clearly done, it will be very possible for the children to err, by taking a word with a similar pronunciation. To make sure of this point, each child before spelling the word that falls to him should pronounce it with a clear and deliberate syllabication, and you are to care for the correct doing of this as well as for the spelling itself. One of H. M. Inspectors observes, "To divide words into syllables in spelling has three advantages. 1. That it renders the learning of poly-syllabic words more easy. 2. That it tends to greater distinctness, by dividing the consonants properly between the syllables. 3. That it requires children to analyse the structure and derivation of words."

In the junior classes you should dictate by single words; in the senior you may vary this plan by giving out a complete sentence. Let it be your purpose to cultivate as thorough a collectiveness of attention as in the reading lesson, and by the same devices.

III. Spelling by Written Exercises, or Method of Written Dictation.

"As writing a word is a slower process than orally speaking it, and as the mind is obliged in that exercise to dwell longer on the relative situation of every letter than it is in mere pronunciation, the orthography of the word must be more deeply impressed on the memory by writing than in any other way;" or, as Mr. Edgeworth has it, "children learn to spell more by the eye than by the ear, and the more they write, the more likely they will be to remember the combinations of letters in words which they have continually before their eyes."

The direction which has been given above as to enunciation is equally necessary here. Every word should be repeated slowly and distinctly—individually if in a junior class; in the upper section the length of the sentences is to be regulated by the standing of the class. Mr. Thayer writes thus,—"And here let me urge upon the Teacher the indispensable necessity of a *perfectly distinct* articulation, especially as to the vowel sounds. Without it, the pupil will often misunderstand the word, though several times repeated; when this is neglected and the words are uttered in that careless and slovenly manner, too often heard even from Teachers themselves, no censure should attach to the scholar, how numerous soever may be his errors."

The most important part of this exercise lies in the plan adopted for examining and correcting the words wrongly written. Two points in the examination require notice; the exercises want a careful examination, and this examination is to be so managed that none of the children may be left without employment, and hence with an opportunity for idleness and mischief. In the upper section, the following plan secures both objects. After you have dictated the whole passage to be written, take yourself the slate of the head boy and let each of the others give his slate to the next above him, hand now the slate you have to the boy at the bottom of the class. You will now begin at the first word, and yourself spell through the entire lesson dictated; ordinary words, rapidly—and those of unfrequent occurrence more deliberately. Whilst you are doing this, each of your pupils, looking attentively at each word on the slate as you spell it, makes a cross *over* any word not correctly spelt; over, that the word may not be at all defaced; if it were, and any dispute should arise about the correction, it could not be satisfactorily disposed of. When this process is completed the number of errors is to be marked on each slate, and the slate returned to the writer. The slates should then be shown, and the children take rank in the class as indicated by the numbers denoting the errors. It is not enough that the errors made should be discovered and marked, as the chief value of writing from dictation lies in writing the words correctly which before were written wrong. The correction may be done in this way; the words in which the errors were made may be written on the other side of the slate, say each word thrice; by this method you may hope to secure correctness in future as far as these words are concerned. That none may be unemployed let those who did the exercise correctly, and those who, having few errors to correct, have finished early, copy on the back of their slates a portion of the exercises already written. R.

Notes on Chemistry.

HEAT.

Almost all substances expand by heat—solids the least; gases the most. Exp. 1. Take a rod of metal, fitting exactly an aperture; make it red-hot, when it will have become too large. Exp. 2. Fill a flask with water, nearly full; place it in a vessel of boiling water, when it will soon begin to run over. Exp, 3. Place a bladder partly filled wilh air, and tightly tied, before the fire; it will soon begin to expand. Exp. 4. Invert a flask in a tumbler of water, allowing the water to ascend through part of the neck; turn the body of the flask towards the fire, or bring a coal near to it, when the expanded air will force out the liquid. Of Solids, Platina expands by heat the least, and Zinc the most. The pendulum of a clock is affected by heat, and is corrected by what is called a compensation bar.

THE THERMOMETER is an instrument for measuring the changes of temperature. Spirits of Wine or Mercury is confined within a narrow tube of glass, terminating in a small bulb or bowl. When water contains unmelted ice, it has been observed to remain at the same degree of coldness till all the ice is melted. On this account the instrument is placed into such water, and the surface of the Mercury in the tube is marked and called *freezing-point.* It is then placed in boiling water, and the surface of the Mercury is again marked, and by the side is written *boiling-point.* In the common Thermometer, Fahrenheit's, the space between these extreme points is divided into 180°, the lower beginning with 32°, ascending to 212°. The expansion of water does not always vary with the degree of heat. It continnes to contract till its temperature declines to 22°, and then begins to expand till it reaches 32°, when it becomes solid. This beautiful law prevents the ice from sinking to the bottom, its specific gravity being from its expansion lighter than that of the water. The stratum of ice at the top prevents the whole body of water being converted into a block of solid ice. The lower degree of the Thermometer has been observed at Melville Island, and the highest in central Africa (138°).

Physics.

It is not possible in school-instruction to impart a thorough knowledge of physical science. The outlines of the subject are wide, and its details numerous. In the acquirement of other branches of instruction more indispensable for common life, little time is left for the cultivation of this. And as the inductive power which it exercises is seldom much developed in children, their real progress in it must be slow. But the basis of this useful knowledge can, in most cases, be imparted, on which future additions will often be raised through books, public lectures, the experiences of practical life, and other means of self-culture. In some schools, as at King's Somborne, elementary scientific instruction has been introduced with much success. To the more advanced children in schools, it will often be practicable to supply regular class-instruction of this kind. Where collective lessons on this subject are given, it should be the Teachers aim to connect them together in a well-arranged series, so that each new fragment of knowledge may be built on what is already known. The series should be so chosen as to bring out the main facts and principles of physics. The Teacher should thoroughly master a subject of so much interest and importance, and then synthetically arrange his knowledge of it with a view to its exposition,—adapting his scheme of instruction to the circumstances of his school, and making it systematic, however elementary and short. He should seek also to illustrate his instruction by common facts and simple experiments as much as possible. The special kind of instruction which is wanted is the science of common things—the explanation of natural occurrences which take place around us.—We wish, in this and other papers, to offer some notes on elementary physical science to our readers, which may perhaps assist them in their study of this subject, or in arranging and condensing their knowledge of it. In the department of Notes of Lessons we hope shortly to insert some model-lessons on this subject, and some hints on their construction. But in this, as in all branches of instruction, the Teacher will do best with notes which he has himself prepared.

INTRODUCTION.

Our knowledge of Nature is primarily obtained through the senses. To use a logical phrase, it is not concerned with *necessary* but *contingent* truth. It is derived from experience—not from abstract thought. A mathematician might work out a system of geometry in his own room, without communication with the outside world; but he could not thus investigate physical truth. Nature has been definitely framed as it is by its great Author, and if we would understand it aright we must become patient and modest students of its language. "Man is the minister and interpreter of Nature.*" This is the maxim on which modern science has proceeded.

In the investigation of Nature we use Observation, Experiment, and Induction. The early formation of the habit of *observation* is a matter of much importance, and—though this is recognised—it is still much neglected as a part of education. One of the best means to strengthen the power of observation, and to make it more accurate, is instruction in Natural History through Object Lessons. Plants, animals, and other external objects naturally excite wonder and curiosity in the minds of children, and this disposition should be cultivated. As observation shows itself earlier than the power of induction, instruction in Natural History should precede that in physical science.—In an *experiment* we interrogate Nature, and watch its behaviour under certain conditions, with a view to extract its hidden laws, and test the correctness of our hypotheses or theories. Experiment has in modern times been a most efficient instrument in scientific discovery. *Induction* has been defined by Isaac Taylor as "the drawing or leading off an inference or general fact from a number of instances, or it is the summing up of observations and experiments. It was Bacon who first introduced this term into philosophy, and taught the true method of acquiring a knowledge of the laws of nature by attending to facts and carefully comparing a great number of instances: instead of the method which consisted in forming a theory or supposition independent of all facts, and then explaining the appearances of nature on the blind assumption that the theory was true."

In Nature we meet with *Objects* and *Phenomena.* Phenomena, i.e., appearances are actions or changes which take place in objects. These phenomena are caused by *forces* which act in definite modes, i.e., in obedience to fixed *laws* which the Creator has imposed upon matter. The general problem in the investigation of Nature is to find out the relation between cause and effect; i.e., from phenomena to discover the existence of forces and the laws by which they act; and conversely to explain phenomena by known forces.

It is now necessary to mark out the place which Physics—otherwise called Physical Science or Natural Philosophy—occupies in the general study of Nature. The whole subject has been divided by Schoedler into *the science of objects* and *the science of phenomena.* The former is called Natural History; and includes Mineralogy (with part of Geology,) Botany, and Zoology. The latter, it is evident, will comprehend three species of phenomena: 1st those where no change, important to its structure, takes place in the object; 2nd those where an important change in the object accompanies the phenomena; 3rd, those where the change in the object is connected with vital action. The science which considers the first kind of phenomena is called Physics. In Chemistry and Physiology the other phenomena are investigated.

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* Bacon. Novum Organum.

Notes of Lessons.

Geography of England, No. IX.

MANUFACTURING TOWNS CONTINUED.

The *hardware* towns, of whatever kind, are found for the most part on the coal fields, where it so happens that not only coal but iron-stone is found in abundance. By hardware is meant metal goods of all kinds. The children to point out, and say where the following towns are placed—Sheffield, Birmingham, Wolverhampton, Walsal, Dudley, and Bilston. Cutlery and tools at Sheffield and Birmingham; machinery at Soho; and nails at Dudley.

The *engine* towns are Soho, Lambeth, and Manchester.

The *foundry* towns - Cannon at Rotherham, Wrexham, and Hawarden; bells at Gloucester; brass at Bristol and Wigan.

The *earthenware* towns—Porcelain or china at Worcester and Derby; other kinds at Newcastle, Burslem and neighbourhood, called the potteries.

Tanning is mostly carried on at Bermondsey; boots and shoes made at Northampton, Wellingboro, Kettering, and Stafford.

The oldest manufacture of England is the woollen, which formed for some centuries the staple; the next in order was cutlery; eighty years ago the manufacture of cotton was only one-hundredth part of what it is now; by the aid of machinery it is now the principal, employing above 700,000 hands. The manufactures form one of the main sources of England's wealth.

Outline Notes for Class Instruction.

I.

Mark I. 1-8.

I. *Introduction.* Explain *Gospel.* Notice the eastern custom suggested by *Messenger*. *Baptize*,—a common mode of receiving converts. Latchet—to unloose this the office of a servant.

II. *Lesson.*

1. Gospels beginning in the world and in man's heart by the same means. Man is prepared for the gospel by *repentance.*

3. As John baptized with water all who repented, so Christ baptizes with the Holy Ghost all who *repent* and *believe.*

III. *Application.*

Has the gospel had a beginning in you? Have you the Holy Ghost?

II.

Mark I. 9-13.

I. *Introduction.* Explain Heavens opened; compare with Acts, vii. 56. Spirit driveth, i.e. he felt compelled in his own mind. Wilderness, the district between Jerusalem and Jericho, barren, rocky and dangerous; compare with Luke X. 30. Wild beasts, these not mentioned by the other Evangelists.

II. *Lesson.*

1. John's baptism one of repentance, Jesus had *no sin* therefore did not *need* it. Who commissioned John? God. Jesus honors the commission, He honors God by submitting to baptism.

2. *The testimony from Heaven.* Very public, a dove and a voice,—thus God honors Jesus. "Them that honor me

I will honor."

3. Jesus follows the motion of the Holy Spirit, though it led him into a barren and dangerous place, to hear things that would vex his soul. Here he again *honors* God. God can keep him even there.

5. The Angels visit him and supply his wants, thus God honors him again.

III. *Application.*

Do you honor God in all things?

Notes of a Bible Lesson.

THE ISRAELITISH MAID.

2 Kings.. V. vv. 1-4.

I. *Introduction.* He was a great Captain under the King of Syria—and, because he had fought well for his country, was much honored. He was one of the chief men in the land—had, it is likely, a splendid palace—much wealth—all the luxuries he could desire—rich furniture—beautiful gardens, perhaps, with fountains throwing up aromatic waters—trains of servants. And yet, with all this, *he was a leper*. In their wars with Israel, the Syrians had carried away, with other captives, a little girl. She was chosen to wait on Naaman's wife.

II. *Lesson.*

1. *The little girl's condition; and her faithfulness.* Think how much sorrow she must have felt—not only because she was away from her home and all whom she had loved, but because she was surrounded by idolaters. What sad sights she must have been obliged sometimes, especially on festive occasions, to witness. She saw the people come together in crowds to offer incense to their idols—perhaps, to some great sphynx or griffin, such as those which have lately been brought to England, and which you may have seen in pictures. Then imagine how her heart, with no other heart to sympathize with it, would go back to the Temple-worship and think of the pure True God, whom she had been taught to love and serve. Imagine her, in her chamber, opening the window owards Jerusalem—her eyes filled with tears as she remembers her home and all her friends. Though the servants ridicule her, her mistress is perhaps kind, for those who do not know God often trust and respect those who obey Him. Her heart opens to her mistress and she becomes her favourite. But one day she is made sad when her mistress says to her—"what use is all Naaman's wealth to him; don't you see that he becomes worse every day; his flesh comes off in scales, and he will soon die. Then a sudden thought comes into her mind; and, looking up into her face, she makes bold to say—"would God my Lord were with the prophet that is in Samaria! for he would recover him of his leprosy." (v.3.)

2. *The Result.* No doubt the other servants sneered at the little maid; they would say, "what—go to Samaria amongst those despised Jews who were made captives by our master! How foolish and impertinent is this little slave girl!" But Naaman went and was healed.

III. *Application.* This little maid should be an example to us. How many boys and girls are afraid to seem religious, and so neglect to pray and do what is right when others see them. Sometimes even they will begin to swear lest bigger boys should suspect them; and so they become worse and worse. This little girl, though far from home and in the midst of strangers and enemies, was not ashamed of her country, her religion, or her God.

B.

Notes on the Pyrenees.

I. *Position.*

Separate France from Spain, run in a South East direction, from the Bay of Biscay to Mediterranean Sea. Greatest breadth about 60 miles, and length about four and a-half times greater, viz. 170 miles. The highest points are Maladetta 11,436, and Mount Perdu 11,275 feet.

II. Character in general—rise precipitously on one side, and by gentle slopes and plains on the other. They are precipitous and rugged on South, rise gradually on North—first a gentle slope, then a plain, then a slope, then a plain and so on. These plains or *terraces* are fruitful, the climate varying as you ascend.

Produce.—In valleys beneath, pasture land, fields of wheat, rye, millet, flax or maize, with abundance of vine, olive and mulberry trees. Ascending we find the oak and walnut; still higher the pine, fir, box and alpine rose; and lastly shrubs with mosses; snow and glacier.

Summits arranged like edge of a saw, hence called by Spaniards *sierra.*

Many of the uncultivated parts covered with wild thyme, lavender and rosemary, furnishing nourishment for bees, whose honey and wax, form articles of commerce.

The animals which inhabit these mountains are the chamois, wolf, bear, Cashmere goat and Merino sheep. The two latter noted for their wool. *Iron* is found in the Pyrenees.

III. The *valleys* are peculiar, running across the chain from North to South, or *transversely*, varying in length, according to breadth of range. They present large circular basins covered with alluvial soil, sometimes 8 miles in length by 4 in breadth. These appear once to have been lakes. The deepest valley in Europe is Ordesa, near Mount Perdu, which is not more than 3,200 feet deep. In the Pyrenees there are about 100 roads or *passes.* Most of them can be crossed by mules or foot passengers; but only five are accessible by carriages. In winter only two of these can be used. The *rivers* are the Garonne in France, and the Ebro in Spain. The course of latter rather rapid, and impeded by rocks.

H.

Notes on the Separation of Abraham and Lot.

FOR CRITICISM.

I. *Introduction.*

When Abraham departed from his father's house to Palestine in accordance with the divine command, he was accompanied by Lot his brother's son.

Lot subsequently accompanied Abraham to Egypt, he also returned with him, but on their return a dispute arose between their herdsmen, and Abraham gave Lot the choice where he would go.

II. *Lesson.*

1. Lot on his departure from Abraham made choice of the fertile borders of the river Jordan.

2. He settled near Sodom and Gomorrah in a very wicked neighbournood.

3. Now notice what followed from Lot's imprudent choice.

(a). He was taken captive.

(b). You know the Bible tells us that Lot was righteous, - but can a righteous man be happy in the midst of great wickedness? We read Lot's righteous soul was "vexed."

(c). But does not living continually among wicked people lessen the piety even of good people? They are constantly exposed to temptation; they place a heavy clog on their souls, and if they do not lose their religious principles, they are likely to become like Lot, who was a lingerer.

(d). Having thus placed himself

in the way of temptation, his piety became weakened, and he suffered himself to betrayed into a great crime.

III. *Application.*

Now you like Lot will have to make choice "of the way in which you will go." You will have to make choice of a calling. Tell me what the example of Lot warns you against. It surely most plainly teaches you not *to make choice for the sake of gain of a situation in life in which you would be mixed up with bad company*, and exposed to peculiar temptations. Like Lot you barter your spiritual interests.

*

In offering a few remarks on this lesson it will be necessary to state first what we assume to be requisite for good notes on a Scripture narrative.

1. In the *delivery* of a Bible Lesson, it is highly desirable to avoid or remove everything that would lessen its effectiveness. That it may be effective its *unity* must be preserved. Now if a teacher has to explain during its course what does not belong to the subject, he breaks the thread of his lesson, that is he destroys its *unity*, and thereby either weakens its effect, or defeats its purpose. We therefore lay down as our first principle, that the verses containing the narrative should be looked over, in order to select all such terms or allusions, as need explanation, which though not belonging to the subject are necessary to its thorough apprehension

2. Every narrative in the Bible we believe is designed to convey a particular truth. Other truths may be contained incidentally, but, as in the parable of the Good Samaritan, we think that there is one principal lesson, which it is the design of the Holy Spirit to teach. Our second principle then is, to get a complete grasp of this truth, of this leading idea. To think the subject through until this one great truth stands clearly revealed to the mind.

3. This truth may have to be deduced from several particulars, or there may be some incidents in the narrative which more strikingly illustrate it than others. Hence our third principle, which is to make a thorough analysis of the narrative. This is done that by a skilful selection and synthetical reconstruction of such particulars as are best fitted, combined with graphic description or vivid illustration, *the truth* may be driven home to the heart and conscience.

4. As the object of the Bible Lesson is not merely to give the children clear apprehensions of the truth, nor even to awaken correct feeling, but to lead them to right acting, the most important part of it, is to secure a personal application. The children must be urged to apply the truth to themselves. Their consciences must be cultivated. The application must not be made for them, yet the teacher should be prepared with any illustrations which might be necessary to place the truth in the clearest light, so as to enable them to make the application for themselves.

These principles apply to the preparation *for* the Notes, rather than to the Notes themselves. From the Notes we judge whether the principles have been observed. The Notes themselves would fall under three divisions.

I. *Introduction.* In which would be explained every term or allusion necessary.

II. *Lesson.* Here the parts of the narrative which have been selected should be made and be subjects of clear exposition. Each part should be perfectly distinct. The illustrations to be used should be fitted into their proper places. The truth should grow clearer and stronger at every step.

This part of the lesson then would exhibit whether there was a thorough grasp of the subject, whether its unity was preserved, the nature of the analysis selection and arrangement of the particulars, and the power of graphic description.

III. *Application.* — Here would be shewn not only the truth to be applied, but the form of putting it to the conscience of the children.

Let us then took at the Notes before

us in the light of what has now been said.

1. Look at the Introduction. Has the narrative been carefully looked over, and the terms or allusions selected which need explanation? As far as we can gather from Notes the answer is—No. They are sadly deficient. A lad, from our customs, would be sadly at a loss to understand the origin of strife, but a statement of the nomadic character of eastern tribes would make it clear at once. The Notes refer neither to this, nor to the strife, nor to the herdsmen. Nor is there any notice of the last clause in verse 7.

2. Applying another principle, we look in vain for unity. The Notes are redundant, truths are enforced which the narrative does not contain. Nor is there to our mind a thorough apprehension of the chief truth. The narrative brings out, as we think, very clearly *Abraham's disinterestedness.* The Notes indeed take notice of a minor though important inference, that of Lot's running into dangerous company for the sake of wealth, but this is rather incidental than the leading idea —it is in fact a secondary lesson.

3. Do the Notes exhibit that previously to drawing them up there had been a vigorous analysis? No! we think they rather suggest an analysis of the events in Lot's subsequent history.

4. These are Outline Notes and therefore are not expected to exhibit the writer's powers of graphic picturing.

5. The application is, of course, a wrong one, but nevertheless is the best part of these Notes. It exhibits, as in fact is done in others parts, an anxious desire for the well-being of his children. Still we should have been better pleased with this, had the manner of putting it been more personal.

In conclusion it is but fair to state, that we think these Notes exhibit the possession of several qualifications of a good teacher, and our young friend has no cause for discouragement in the comparative failure of this attempt

ELEMENTARY ART-EDUCATION.

Public intelligence is beginning slowly to admit that there is no royal road to a knowledge of Art, and that, like language, mathematics, or chemistry, Art must be learnt, and indeed can only be learnt, by slow degrees. The Government has now arrived at that conclusion, and has broadly affirmed the principle that elementary knowledge of form and colour should constitute part of the national education. When it has brought that principle to bear upon the public mind, there will be a machinery by which we hope to enable all schools in the United Kingdom, even the most humble, to acquire this elementary knowledge; but it will be a long time before a system approaching to completeness can be matured. In the meantime, however, some little in a right direction can be done everywhere, as well in the school of a distant country village as in one in the metropolis.

Preserving the principle of a partnership and mutual action with the public, the Board of Trade has determined that every public school of an eleemosynary character shall be able to obtain a stock of drawing copies and models at half their cost price. We are collecting the best examples from all parts of the Continent. We are examining all systems, and, without prejudice for any, endeavouring to form a catholic judgment upon what may be most deserving of recommendation. We have already prepared a list of objects which we do not hesitate to recommend. Gradually we shall be able to improve this list, but in the meantime there is something to act upon. Every one, therefore, interested in the management of a public school may obtain the whole or any part of the objects in this list at half prime cost. For a single sovereign, we have already sent examples to poor village schools, managed by self-sacrificing clergymen, who act as the patriarchs of their parish on stipends of £100 a year! We are preparing a manual to show how these models and examples may be used by teachers who have not learnt drawing.

We are organising a body of teachers who shall visit schools possessing these objects, and demonstrate to the *masters* and *mistresses* how to use them. Our proceedings can only keep pace with the supply of qualified teachers; upon whom, it is obvious, that all effectual measures must depend. But we are not insensible to this want and are endeavouring to provide for it; and, we hope, from the several Training Schools, in connection with the Committee of Council for Education, to obtain a corps of masters, who may be able to acquire the power of imparting elementary instruction in the principles of art, as they do in other branches of education, and yet may not be preeminent artists themselves. A perception of the metaphysics of teaching is more important than the mere skilful practice of the thing to be taught. An expositor may he clear, although a clumsy manipulator. To teach children how to see straight and curved lines, to know a sphere from an oval, and to prove that they know it by drawing it; to show them how to perceive that most objects appear with light and shade, and that there are colours in the world which may be artificially brought together well or ill, according to certain laws, only ordinary intelligence is required. It is not imperative that every one should be an incipient Raffaelle to teach these things.

We feel that it is more important to the end in view, to have elementary knowledge of form and colour imparted in all schools, beginning even with infant schools, than to generate at once special schools for the purpose.

Next to reading, and in some cases before writing, a correct appreciation of form, and power to delineate it, is necessary. A sense of correct form is indispensable to the artizans,—carpenters, masons, bricklayers, smiths, sempstresses, &c.—who spend their lives in trying to realise it in material substances; and not less indispensable to the purchaser, and therefore critic, of their works.

Where a locality has a sufficient number of schools to justify the appointment of a master to visit each school in rotation, and is willing to pay at the rate of £5 a year for each school for a lesson to be given once a week, there we shall appoint a competent master as soon as we have trained him; and we have already commenced this system at the National Society's School in the Sanctuary, Westminster, and at a large school for adults and children near the Charterhouse, conducted by the Rev. W. Rogers, and numbering several hundred students. —*Address on Art-Education. By Henry Cole, C.B.*

Correspondence.

Sir,—In answer to a "Young Teacher's" enquiry respecting Mensuration, I think many of us are at a loss to know *how much* of many of the subjects, set down on the "Broad Sheets" for Pupil-teachers, they are expected to master. I have been in the same difficulty; but as these things are left to our own discretion, I solve it by taking both solids and surfaces to come under the term "Mensuration."

I use Tate's Geometry (Edition III), and commence at his surfaces, and go as far as specific gravity, but omit some of his problems—as, xii. (p. 156), xxvi.-xxxii. (pp. 179-186). Many of the rules of both divisions are so closely connected, that in going through surfaces, examples in solids may be taken at the same time. For instance, after going through the rule for finding the area of a circle, with a little explanation, the Pupil-teacher may soon understand how the solidity of a cylinder is obtained; and from the cylinder, that of the cone, the latter being one-third of the former. Again from the equilateral triangle to the solidity of the prism.

As many of the rules in surfaces are proved from the first book of Euclid, a Pupil-teacher in his fourth year should have mastered it sufficiently as to be able to investigate the proofs of these rules, which will be found in the first part of Tate's Geometry.

One part of Mensuration should not be overlooked, viz.: Artificers' Work. Many of our children leave school to follow their parents' trades—masons, painters, bricklayers, &c: the Pupil-teacher should work through this, so that he may impart this knowledge to those who may need it, as it would be much to the advantage of those who go to these trades, to be enabled to estimate the value of their work.

JUVENIS.

Sir,—In answer to one of my fellow labourers' enquiry respecting a good warm game for children in the play-ground, I send you the following, if you think it worth publishing. The game is known by the name of "Duck;" it should be played by a number not exceeding eight or ten, and not less than three. A large stone with a smooth top is placed on, or fixed into the ground, and an offing marked at eight or ten yards distance; each of the players being previously provided with a large pebble or stone, twice the size of a cricket-ball, or thereabouts—we use here round wooden balls, some three, some four, and some five inches in diameter. One of them, by chance or choice, becomes Duck, that is, he places the pebble or stone, with which he is going to play, on the large stone (if with wooden balls, on a block of wood) and stands a little on one side. The others then cast their Ducks at it in turn, from the offing, each endeavouring to knock it off its place. Each player, as soon as he has cast his Duck, watches for an opportunity of carrying it home, so as to cast it again. If the player, who is the Duck, can touch him, after he has taken up his Duck and before he reaches the offing, providing his own Duck is not knocked off, which the others should try their best to do whilst he is chasing any one of them; then the player so touched becomes Duck. All players must go to the offing after the Duck is knocked off; the one who knocks it off will have to take the greatest care lest he gets caught before he gets home with his Duck, the others should try to help him by knocking off the other's Duck as before. If any of the players pitch before the Duck, the one who is Duck may touch him, unless he can kick it behind the Duck before he is caught. To prepare for going home, you may kick your Ducks from behind the Duck-stand, but if you get before, you run the risk of being made Duck.

W. H.

Sir,—In proposition 30, book iii. of Euclid's Elements of Geometry, I find the following phrase—"And AD, DB, are each of them less than a semicircle, because DC. passes through the centre." Would any of your readers, through the medium of your valuable periodical, inform me whether or no this phrase is essential to the demonstration of the proposition, and if it is, how.

F. H. W.

Sir,—In Hind's Arithmetic is the following question—"A stationer sold quills at 11s. a thousand, by which he cleared ⅜ of the money; what would he gain per cent. by selling them at 13s. 6d. a thousand?"

The answer he gives is, £96.7s. 3½d. In Colenso's Arithmetic there is the same question, but the answer in that work is £49 two twenty-sevenths per cent.

Will any of your correspondents, through the medium of your valuable paper, inform me which answer is correct, with reasons.

C. M.

[If C. M. will look a little more closely into the example in Colenso's Arithmetic he will find two questions, the answers to both of which are given. As far as the questions in the two Arithmetics agree, the results are similar.]

J. J. D. will be obliged by some precise information as to the meaning of "Abstract of a Lesson, or School Report," required of Pupil-teachers in the second year.

W. B. replies to the enquiry made last month, by saying, that as far as he has observed, schoolmaster's houses are liable to rates when they are detached; but if contiguous, they are considered part of the school building, and consequently exempted.

Several Pupil-teachers very respectfully enquire how far they are bound by their engagements, to sweep and dust the school-room, and to attend with the children the Sunday services.

[We think, with respect to the latter, there can be but one opinion. It forms a part of the master's duty, and therefore theirs. We think, moreover, that wherever there is a proper spirit manifested by the apprentice, he will feel a pleasure in affording his master the best services he can render, in connexion with the children whilst at church.

Sweeping and dusting the school-room can form no part of a Pupil-teacher's *duty*, and we cannot think that such a requirement is often made. In making a deliverance on this matter, we must distinctly state, that we have no sympathy with those who would shun manual employment; we even think that the young people engaged as apprentices, would be greatly benefited by a little, but then its character should be such as not to degrade them. To be compelled to sweep the school must do so to some extent, and thus considerably lessen their influence in the school. We should hope that all our readers discountenance everything calculated to lessen the self-respect. which it is so extremely desirable, Pupil-teachers should cultivate.]

Sir,—Your correspondent, A., asks for the best book on Electricity; and how to make the machinery. I have several different kinds of batteries and always found E. Sydney's the best book; it is published by the Religious Tract Society, and is cheap.

R. G.

Educational Intelligence.

EXAMINATION OF TRAINING SCHOOLS, CHRISTMAS, 1852.

CLASS LIST OF CANDIDATES FOR CERTIFICATES OF MERIT.

MALES.

CHELSEA, St. MARK'S.

I. Class. *2nd Div.*—A. Haworth (Exeter Training College), J. Merriman. *3rd Div.*—R R. Grey, H. S. May, F. Thorne.

II. Class. *1st Div.*—R. Blythe (Windsor, St. Marks N.S.), D. Bond, J. Clark, J. Collier, W. T. Dixon, A. Hannaford, W. Haworth, T. Lunnon, W. I. Rickard. *2nd Div.*—W. H. Walters (Wolverhampton, St. Peter's), J. Bradshaw, A. Daglish, J. James, E. Page. *3rd Div.*—J. Brown, J. Carilon, G. A. Chapman, D. J. Chisholm, W. J. Crooks, J. Griffiths, R. E. Hall, E. D. Jones, F. Long, W. Scott, W. Whitehead, R. N. Wilson.

III. Class. *1st Div.*—H. B. Lockwood (London, Curzon Chapel), C. Batchellor, G. Bishop, H. Callard, A. Carson, J. P. Cuckow, J. Molineux, W. Pleasants, W. S. Williams. *2nd Div.*—W. T. Abbott, H. Brooks, F. H. Clark, R. Eedes, E. Salter, R. Williams, T. Richards, W. Burgess. *3rd Div.*—T. Hillman (Lyndhurst N. S.), C. Southby (Narbuth N. S.), J. Bacon, G. Betts, E. Bickell, F. Gruzelier, C. Jones, R. Seddon.

CHESTER.

II. Class. *1st Div.*—M. Curwen, W. Snelson. *2nd Div.*—J. Baker, S. Beisley, E. J. Watkins. *3rd Div.*—Q. H. Wheeler, J, Boden.

III. Class. *1st Div.*—J. Sharples, W. Escrect, W. Stanyer. *2nd Div.*—J. Davis, R. Pickering, T. Barber. *3rd Div.*—T. Sherratt (Seaforth, Liverpool), W. Smith (Hoyle Lake N. S., Birkenhead).

HIGHBURY.

I. Class. *3rd Div.*—H. Roe.

II. Class. *3rd Div.* — W. H. Holtaway, H. T. Symmons, F. J. Wrightham.

III. Class. *1st Div.*—C. E. Merks, W. Nash. *2nd Div.*—C. Millington, T. Phillips. *3rd Dir.*—G. Barham, H. J. Barton, T. P. Dexter, J. R. Mobbs, R. Rawlings, J. Rogers.

KNELLER HALL.

I. Class. *3rd Div.*—J. Neal, W. Williams.

II. Class *1st Div.*—W. Crellin, W. Dennett, C. J. Vinall. *3rd Div.*—B. Benson, J. Jessup, G. W. Marsh.

III. Class. *1st Div.* – H. Atkinson, F. Bignell, F. W. Sparke. *2nd Div.*—H. Cox, J. Craston, J. Cruess, B. Morris, W. Onions, G. Preston, C. E. Wilson. *3rd Div.*—C. Buckland, B. Kirk.

YORK AND RIPON.

I. Class. *3rn Div.*—R. Chartres.

II. Class. *3rd Div.*—S. Bamford, W. T. Burgoyne, J. Douthwaite, J. Jurner.

III. Class. *1st Div.*—R. J. Bulson (Seacroft N. S., Leeds), R. Blizard, W. Bryant, T. Farrar, W, Margerison, H. Wrothwell. *2nd Div.*—J. Bell, J. Best, J. Easton, W. Meadows, T. H. Smith. *3rd Div.*—J. Robinson (Burton Leonard Church S.), W. C. Brierley, J. Exley, S. Harper, G. Moorhouse, J. Sykes, T. Sykes, S. Walter, M. Wheater.

FEMALES.

HOME AND COLONIAL.

I. Class. *3rd Div.*—C. Temple.

II. Class. *1st Div*—A. Roberts. *2nd Div.*—E. Booth, S. Challis, A. J. Haynes, M. C. Kent, E. Reynolds. *3rd Div.*—S. Goldthorpe (Kingsdown, St. Matthews), A. Hewitt (Brampton Infant), M. E. M. Jones (Home and Colonial), M. Teague (Saffron Walden N. S.), M. Clague, M. Howitt, J. E. Main, E. Moss, E. Newton, M. J. Wales.

III. Class. *1st Div.*—M. A. Davis (Mylor Bridge School). C. Holdway (Charter House, St. Thomas), L. Adams, S. Brown, E. Knapton, C. Needham, E. Tenison, M. A. Willmott. *2nd Div.*—M. A. Booker (Winchester, St. Thomas), M. A. Gunton (Duke of Bedford's School, Thornley Abbey), A. Teague (Saffron Walden Infant), L. Arnold. M. A. Hunt, S. Morgan, F. L. Roberts, G. A. Williams. *3rd Div.*—M. A. Branston (Grappenhall, Warrington), M. Cannell (Liverpool, Christ Church), M. Hodgson (Salisbury Rectory S.), E. M. Snitzenick (St. Pancras N. S.), E. Evetts, S. Flather, R. Marshall, E. Smith.

WHITELANDS.

I. Class. *2nd Div.*—A. Harlow. *3rd Div.*—E. Fea, I. Joslyn, S. Maxwell, M. Millington, E. Wells.

II. Class. *1st Div.*—H. Willmott. *3nd Div.*—S. A. Dear. *3rd Div.*—E. Farmer, E. F. Hart, M. J. Titley.

III. Class. *1st Div.*—S. A. Bird, M. Blackmore, M. A. Clark, H. Sykes, E. E. Watters. *2ud Div.*—A. E. Fuller, T. Trayt, A. Williams. *3rd Div.*—A. Attewell, P. Bevan, C. Cutbush, A. Ellis, M. Gillespie, C. Hammett, S. Renton, M. Simpson, S. Twinch, E. F. Wilby.

CHRISTMAS EXAMINATION-SUMMARY.

The abstract of the results of the Christmas Examination which follows, is taken from the *National Society's Monthly Paper*.

MALES.

	No. of Candidates.	First Class.	Second Class.	Third Class.	Total Certificates.
Battersea	67	8	14	29	51
Carmarthen	32	1	2	8	11
Carnarvon	15	...	...	5	5
Chelsea, St. Mark ...	76	5	26	25	56
Cheltenham	75	13	20	18	51
Chester	36	...	7	8	15
Chichester	12	1	3	5	9
Durham	18	1	4	11	16
Exeter	27	1	4	13	18
Highbury	26	1	3	10	14
Winchester...	13	2	2	8	12
York and Ripon ...	41	1	4	20	25

FEMALES.

	No. of Candidates.	First Class.	Second Class.	Third Class.	Total Certificates.
Brighton	10	...	...	5	5
Cheltenham	43	3	4	15	22
Derby	17	1	3	2	6
Home and Colonial ...	82	1	16	24	41
Salisbury	32	1	7	11	19
Warrington	22	...	3	10	13
Whitelands...	57	6	5	18	29
York and Ripon ...	9	...	3	4	7

NOTICES OF BOOKS.

Fourteenth Annual Report of the Church Schoolmasters' Association.—We have read with pleasure this simple record of the year's work done by the London Association of Church Schoolmasters. To the friends of education these Associations present many points of interest; but that which is most important is the evidence they give that the principal agents in the elevation of our youthful population are alive to the necessities of their position. In the face of the crude notions abroad as to the means whereby Schoolmasters may obtain a more honourable status in society, we hold most firmly that nothing will so speedily and so effectually accomplish this purpose, as decided efforts made to improve themselves. Let them but show that they possess the qualifications of high moral character and competent knowledge, combined with clear and enlarged conceptions of the *rationale* of teaching, and we are quite sure they will rise. Teaching will continue to be empirical—a mere application of methods and systems, without any intelligent apprehension of the reasons why such applications are made, till Teachers energetically apply themselves to master the philosophy of their profession. Teaching ought really not to be dignified with the term profession, till this is done, and done thoroughly. We are glad to observe that the majority of the lectures delivered to this Association are not merely lectures which supply information, but such as are calculated to improve and elevate the schoolmaster. That this Association is managed by prudent men is evident, by the balance sheet showing money in hand.

Manual of English Grammar.—Rev. J. Hunter.—National Society's Depot.—Every one conversant with the mode in which instruction has been given during the last few years, in elementary schools, will be prepared to admit that much of it has been lost for want of better modes of rendering it permanent. Collective lessons have been carefully prepared, and frequently as carefully given, and there the matter has ended. This will not do in subjects of instruction; there must be, besides the efforts made by the Teacher te secure a certain amount of mental discipline during the progress of the lesson, some effectual way of employing the memory. The former race of Teachers overworked this admirable faculty; but now in too many cases it is not worked at all—that is, in any systematic manner. This is decidedly wrong, and another illustration of the readiness with which we pass from an error to its opposite. Collective lessons are good, especially on such a subject as language, but they should, for advanced classes, invariably by based on a text-book—thev should be in fact expositions of the text. What is wanted as supplementary to this is, that the children should have this same text, and commit it to memory, and upon the portion of the text so learnt, an examination should be made at each successive lesson in the series. The two methods combined would secure an intelligent apprehension of the subject, and a permanent hold of the text. Mr. Hunter supplies a text-book well suited for this purpose, full and yet concise, clear both in matter and method, and with good questions for written examination. It is a book we heartily recommend.

Elements of Algebra for Use in National and Adult Schools.—Rev. W. Colenso.—Longman and Co.—This edition is an abridgement of the larger work on Algebra by the same Author, and is so arranged as to contain in the first part an investigation of principles, and in the second, a collection of examples. To those who know Mr. Colenso's mathematical Works we need hardly say that his principles are lucidly given, and his solutions characterized by great neatness. This edition will form a good introduction to the larger work, and as such has our commendation; for elementary schools, in their present stage, we consider it much too difficult.

The Union Harmonist.—Sunday School Union.—Paternoster Row.—This is a re-publication in a smaller and cheaper form of the larger edition published some few years since, to meet the demand for cheap choral music. The whole of the voice parts are given in the present edition, in a neat and readable form, together with the words. We cannot say that all the pieces selected are the best which amateur performers might find, but if we remember aright this collection was amongst the first, and professed only to have brought together and given in a convenient form those anthems and other pieces of sacred music which were then generally received. In doing this, good service was done to the cause of sacred song, and the lovers of music devoted to its highest purposes, can easily overlook a trifling imperfection. The present neat and very cheap edition ought to meet with a large sale.

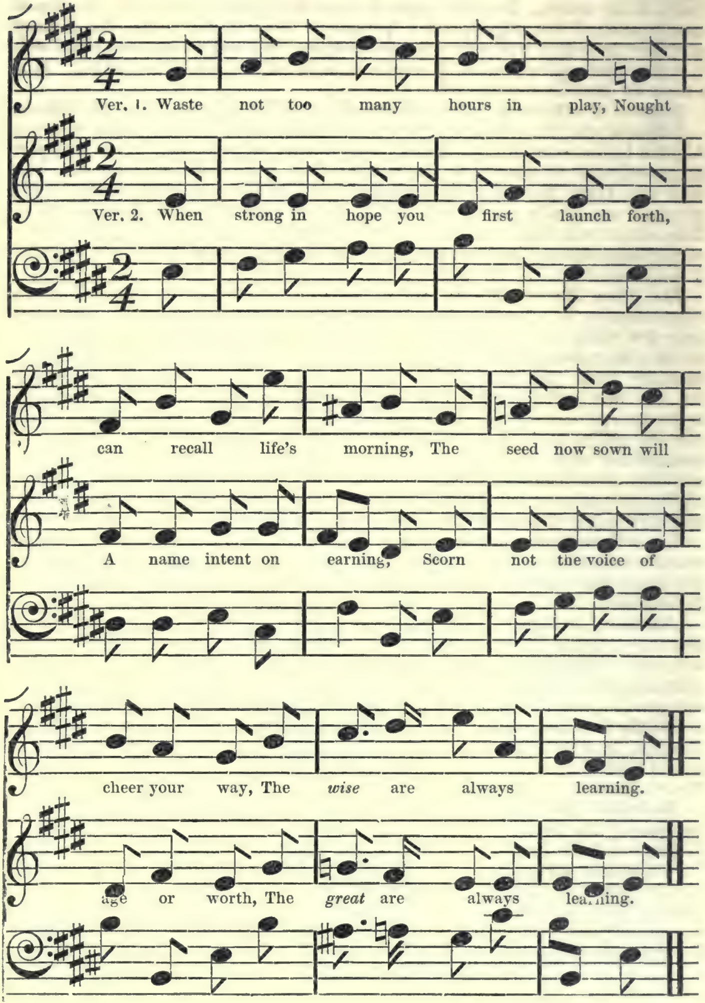
Union Tune Book.—(Continuation. Part I.)—Sunday School Union—A very useful continuation of the original Tune Book. Many of the melodies, though not so generally known as those before published, are quite worthy of as wide a circulation.

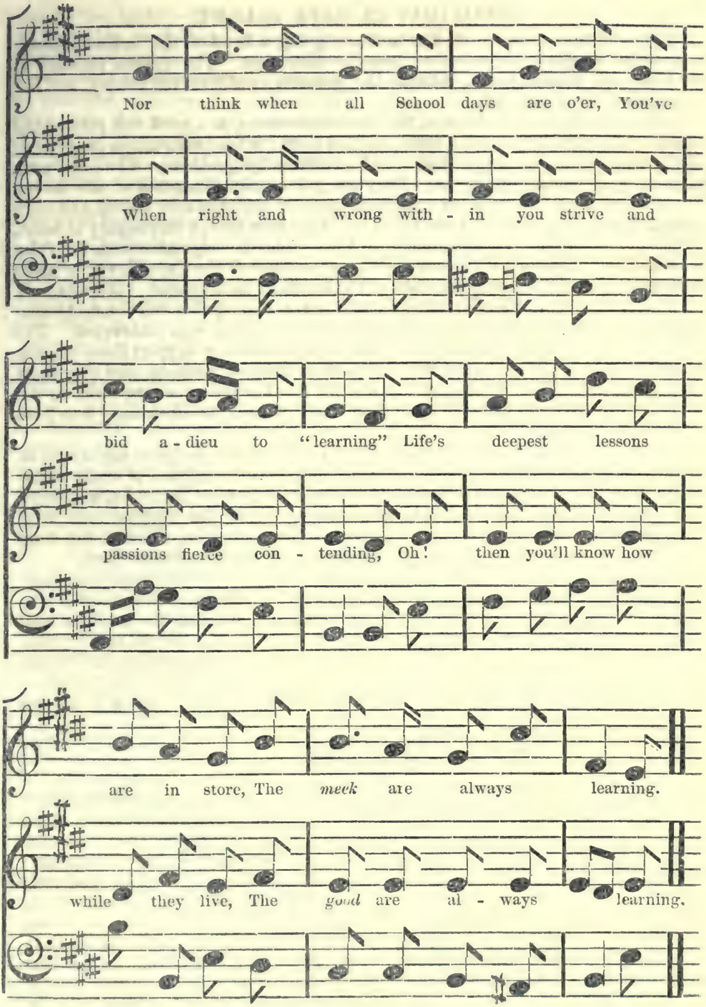
Astronomy and the Use of the Globes—(Gleig's Series)—J. Tate.—Longman and Co.—A small but very useful introduction to one of the most interesting of sciences. The mode is even superior to the matter—so different is it from the introductions common but a few years ago. Its illustrations are numerous and good—some ot them unique, and all of them rather superior to those ordinarily found in books of this class. The Model Lesson, showing how the Teacher, by a suggestive course of reasoning, may lead the pupil to reflect and reason upon the knowledge communicated to him, will be read with interest by those engaged in instruction.

Historical Questions.—Part I.—(Gleig's Series.)—Longman and Co.—This volume of the Series contains questions on Sacred History, the History of England and the British Colonies. The questions are offered, not that Teachers should restrict themselves to the formulæ given; but to assist persons at a loss how to frame such oral questions as may come down to the learner's comprehension." The questions are never petty or trifling, but mostly tend to bring out important points; they are generally well constructed, and seem to us admirably fitted for use in schools where written exercises are required.

Always Learning.

Composed by Thomas Crampton.


Ver. 1. Waste not too many hours in play, Nought
Ver. 2. When strong in hope you first launch forth,
can recall life's morning, The seed now sown will
A name intent on earning, Scorn not the voice of
cheer your way, The *wise* are always learning.
age or worth, The *great* are always learning.


Nor think when all School days are o'er, You've
When right and wrong with - in you strive and
bid a - dieu to "learning" Life's deepest lessons
passions fierce con - tending, Oh! then you'll know how
are in store, The *meek* are always learning.
while they live, The *good* are al - ways learning.

EDUCATION IN CAPE COLONY.

"Some of the colonies of England are going a head of the mother country in a matter of great importance—popular education. The system pursued at the Cape for several years, reflects the greatest credit on the colony, and has been eminently successful.

"In every town and village of the least importance, is a good and substantial school room, open free to all classes, and all sects: where instruction is given in all the essentials of a simple and sound education by gentlemen who have been selected with great judgment. They are principally graduates of the Scotch Universities, and are without exception men of considerable ability aud high character, and who seem to have the interest of their charge thoroughly at heart.

"The idea of the establishment of these schools originated with Sir John Herschell, when the great astronomer was sojourning at the Cape Town, to make observations on the Heavenly bodies of the southern hemisphere. He was ably seconded in his suggestions by Dr. Innes, then the Principal of the South African College, and, by their joint exertions, the present system was elaborated. The local government most honorably voted the requisite funds to support these schools. Dr. Innes paid a visit to England to select competent teachers, and in a short time, a sound and useful education was at the service of every child in the colony, whose parents chose to avail themselves of such an advantage, free from every kind of expense.

"I must state that the broad principles of the Christian Religion are taught in these schools: but with such praiseworthy and careful avoidance of every sectarian doctrine, that the Churchmen, Dissenters, and Roman Catholics, and even one or two Mahometans, attend these schools without the slightest complaint ever having been uttered by any one on religious grounds. This is the more remarkable, inasmuch as sectarian differences run very high at the Cape.

"The teachers have salaries varying from £150 to £200, besides a house. The instruction consists of reading, writing, history, mathematics, natural philosophy, and geography. Out of the regular school hours the teachers take private pupils at a moderate rate, who wish to learn Latin, Greek, and French. Thus, I have no hesitation in declaring that the rising generation will be far beyond that of England in every essential of a good education. Perfect ignorance will be almost unknown and unheard of in the colony."—*The Cape and the Caffirs. Alfred W. Cole.*

EXTRACTS.

"That we have nearly completed now our knowledge in outline of the world's material capabilities, and that the facilities which now exist for the intercommunication of its most distant races are irrevocable and increasing—these at least, and the like of these, are facts which point to many things, which though yet not quite visible we feel sure soon shall be. They teach us at least that the life of man on earth is every day becoming more and more a Problem, and less and less a Theorem. The world is fast filling now with human souls: and these are so rapidly tending to intermingle that new forces are being generated to an extent which urgently demands vigorous control, and yet more urgently wise guidance and development. There will be henceforth interest enough in life, and work enough to do, for the majority of us, besides that most pressing of all duties, the education of our own souls by daily discipline and self-denial in the discharge of the duties that lie nearest to us. A Ministry to the Multitudes in our own land, and Missions to the Heathen in other lands—these are the great calls of our time. Thoroughly to Christianise Christendom, and to raise the lower races of mankind to the level of the higher—this is the noble and boundless work that lies before us. Consider well but this one fact: At this moment that I am speaking, there are one thousand millions of our brethren living upon the earth: and before the majority of those who listen to me shall have passed away from it, there will be one thousand millions more—each one of whom has within him a capacity of Immorality which each one of us may help him to reduce. How large a field for Christian enterprise lies here—how loud a call to a new Crusade—I must leave it to your own hearts to judge.

Only further would I say, and beg you to remember, that for any such achievements no great mental gifts are needed: simply a sincere, energetic, Christian soul: one that feels itself no longer its own, but Christ's servant because by Christ redeemed. Let a man have but a living faith in God, in Christ, and in the Holy Ghost—such a faith as is instead of sight—and he may work what men call Miracles. To know by feeling what almost all know by tradition—this alone will make a man powerful for good above the many. He who shall preach Christianity as feeling it the greatest of all Realities, will be a Prophet in any age. He who shall feel God to be his Father, and men his brethren; he who shall feel the worth and sacredness of every human soul—its instant ruin and possible restoration, how constituted and how accomplished—such a man will be ever a regenerating influence in the world. And such an one alone can be. For the truest Philanthropy has its root in that idea of the connexion of our nature with the Divine of which the Cross of Christ is the chief assurance and the very symbol. A hearty reception of the peculiarly Christian Idea of God as a Parent of Almighty Loving-kindness in Christ—comprehending in His care the most worthless, and condescending to the most weak—this will breathe into a man the same kind of sympathy towards his brethren as Christ has towards him, and produce in him a love of them stronger even than his love of life. It is the belief that God is in Christ—that while we were yet sinners Christ died for us—it is this which above all teaches the true Brotherhood of man, by shewing how every one soul is linked to every other by the double chain of Redemption equally and Creation. None but a Christian will be found to have sympathy enough with the Race, and reverence enough for the Individual, to be willing to bear a Cross for others as well as for himself, and equally for all or for one. But to do this—and only to do this—is to do as Christ did, and through His communicated grace to become in some measure, as He was without measure, a Saviour of men. And can there be a conception of Humanity more approximating to Divinity than this? No: and he who is this, is in some sense already a partaker of the Divine nature: he who in any way thus spiritually blesses his brethren must be great in that kingdom which, though in this world, is not of it: and he who saves many souls from sin, shall shine brightly in that kingdom even when it shall all be transformed into an inheritance of Light.—*Myers' Sermons preached before the University of Cambridge.*

Discipline and Influence.—In its widest sense, discipline expresses the entire work of education; in its more restricted and usual signification, it is applied to the governing and management of those under instruction. We must not, however, confine its intention to a mere temporary purpose, for it is, in fact, the practical teaching of morals by the restraints and encouragements of the school-room. They are necessary for the daily business which is in hand; but there is a farther and more permanent result, which must always be kept in sight.

Influence is a more subtle and effectual kind of authority, not so obvious, yet having a wider reach. It comes by slow degrees, and is easily endangered; but its effect is so great, and so universal, that it is worth while to observe very carefully how it may both be obtained and preserved. It is not the mere ascendancy of the strong over the weak; nor is it the result of indulgence, which children soon despise as weakness; but it is gained by daily consistency of conduct, by sincerity and impartiality, by earnestness, gravity, and gentleness, just as harshness or caprice, injustice or levity, would certainly destroy it. We must never forget that cheerful and willing obedience is only rendered through the influence of respect and love. A calm and earnest mode of speaking is very important, and will avail more than violence, which, in a little time, loses all its effect. Power is calm and self-possessed. To be violent is, in a measure, to betray a secret misgiving, that we shall not succeed in carrying our point unless by unusual exertion. A quick manner, a watchful eye, a firm tone, are very availing. Irony and mocking words must be carefully avoided, for nothing tends more effectually to shut a child's heart against us, and to deprive us of his confidence, which we can never win back any more. There is a natural faith and trustfulness, which are open to receive impressions; we must take care not to weaken or destroy them, by any fault of our own. It is more easily done than we suppose, and by ways of which a careless teacher is little aware.

Steadfastness has much to do with influence. A master must not be under the control of impulses, punishing, perhaps, a fault to-day, which was lightly passed over yesterday. All notions of right and wrong will be perplexed, if his mood is made the measure of faults, and if they are visited more heavily, because he is weary or irritated; it would be impossible for him, under such circumstances, to retain respect. He should lay down rules with consideration, which, when once established, he should carry out firmly and evenly; discipline, to be effectual, must be prompt and uniform; he ought therefore to be careful not to give unreasonable comments, for instance, such as would imply the sudden change of a long Indulged habit, with which immediate compliance is impossible, and which must be relaxed, unless he would commit an injustice. A rule should never be laid down without deliberation, and a full purpose of requiring obedience; for signs of irresolution and wavering only provoke resistance. It is a great point for him to secure, as far as he can, the judgment of the children on his side, not of course by any appeal to their opinion, but by letting them see the equitable system which he follows, and his evident regard to their welfare. They are required to obey even when they cannot see the ground on which obedience is demanded, just as they are called upon to receive religious truth before they are able to understand the foundation on which it rests. Any other system is as contrary to common sense as it is to the word of God. And yet if the master can bring them to his views, and carry their minds and consciences with him in his plans, he will secure their co-operation in place of indifference or counteraction. Their compliance will be free instead of being a compulsion; and they will at the same time learn a duty, the neglect of which is incompatible with any real progress in moral and religious character.—*The Church Schoolmaster.*

PAPERS FOR THE SCHOOLMASTER.

No. 27. May 1, 1853.

The New Education Bill.

The proposal with respect to public Education which the present Government has submitted to Parliament, purposes rather to supply new means for its extension than to present a final and thorough settlement of this important question. It is not a national scheme. It suggests and facilitates the diffusion of elementary instruction, but does not prescribe it. Its purpose is not to put aside individual and voluntary action for the action of the State—as occurs in most of the Continental schemes of Education—but to stimulate and direct it. It does not compel each child to be taught and each town or parish to raise its proper complement of School-houses. But larger and more pretentious schemes which have been propounded were impracticable. No social problem is more difficult to solve than that which investigates the administration of public instruction, because none penetrates more immediately into the sphere of individual rights and religious convictions. There are so many obstacles to be overcome and such various and extreme opinions to be satisfied, that a large and comprehensive treatment of the subject seems impossible. Meanwhile it is better to do what we can than wait till we can do all we wish. While we discuss utopian theories, and compare systems which will not work, children are left untaught. We accept, therefore, this measure as a practical movement in advance, and trust that it will receive the sanction of the Legislature.

The main provisions of the new Educational Bill, which lies before us, are these. In all towns which have a charter of incorporation an educational rate-in-aid may be levied with the consent of two-thirds of the Municipal Council. The rate is not to exceed sixpence in the pound. It is not to be applied in support of a new class of schools, but of such as already exist, or similar schools which may be hereafter raised. The Municipal Council is to elect a School Committee through whom the proceeds of the rate will pass to the managers of the various schools which receive aid. These schools must be connected with the Committee of Council, and the teachers of such schools must be certificated. The School Committee will inspect the school accounts and register of attendance in each school which it aids, but will have no control over its management and internal discipline. It will be competent for any parent or guardian of a child, by giving notice to the master, to withdraw such child from any matter of instruction on religious grounds; and no child will be required to attend or abstain from attending any particular Sunday School or place of religious worship, contrary to the wish of such parents or guardians. The School Committee will be empowered to grant aid for the opening and support of evening schools. Seven-tenths, at least of the whole income derived by any school from all sources is to be appropriated to the salaries of the Feacher and his or her Assistants. In a school where the average number of children amounts to 160 or upwards, there shall be a certificated teacher, or assistant-teacher, to every 80 scholars, besides apprenticed pupil-teachers. The Boards of guardians in any town under the operation of the Act will report to the School Committee the names and abodes of the children, between the ages of four and twelve years, of parents receiving parochial relief who do not attend any school, and may require such children to attend some school in the town, subject to the payment of twopence for each scholar. The Act vests large powers over the School Committee in the Committee of Council.

Such is the Education Bill in outline. The principal feature is the proposition of an education-rate. Of course, it is objected that this is conditional and not absolute; and that few towns will place themselves under the Act. But as it has been observed, "compulsory education would soon have to follow a compulsory rate; and even where a school rate is proposed and fails, the cause of education will probably be the gainer. The enthusiasm which prompts a minority to endeavour to tax a community will, perhaps, under the stimulus of disappointment tax itself, and founders who cannot get their schools supported by public funds will often—from pique, if not from higher motives—think about supporting them themselves." The voluntary rate-in-aid is in accordance, besides, with the spirit which pervades the rest of our educational arrangements. We see no serious objection to the principle of an educational rate; it will perhaps tend to diminish the self-taxation of individuals for the support of Schools, but will furnish more efficient means for their maintenance in its place, and distribute the taxation through the community.

It will be observed that while the Government measure requires teachers appointed to such schools as desire assistance from the rate-in-aid, to be certificated, it also seeks to secure a proper provision for them. While it demands evidence of the teacher's efficiency, it endeavours to improve his condition. The clause which asssigns seven-tenths of the whole income of the school, derived from the borough-rate, school-payments, and voluntary contributions, seems to have been received with general satisfaction.

It was not clearly announced what scheme would be adopted to extend education in rural districts and in those places where municipal corporations do not exist. "We propose," said Lord John Russell, "by means which have been under consideration which have not been yet fully matured, to allow in certain instances, in places which have not municipal corporations, a certain sum per head for the children attending the school. It would be necessary to confine any such grant to those schools where the schoolmaster has obtained a certificate, but as I have said the provisions of that minute have not been fully matured."

It was also intimated by the Government that they proposed to bring forward a scheme for placing the small educational endowments which exist in various parts of the country under better management and for cheapening the process by which they can be made to serve the purposes which they were designed to effect. A Chancery suit at present is the sole remedy; and the expenses which it involves are so heavy as in most cases to absorb the original endowment. It is said that if this project is successful more than £300,000 per annum will be thus made available for educational purposes.

It remains to be seen whether the public mind is prepared to accept this measure and to act out its provisions. It does not seem probable that large immediate results will attend it. But the measure is free from serious objections to which other projected schemes have been exposed, inasmuch as it does not seek to establish a new order of school, and therefore the question of their management, which is surrounded with great difficulties, is not raised. We trust that it will be found to give a new impulse to the real though gradual educational progress which has obtained within the last few years, and that neither local political differences nor sectarian antipathies will impede a measure which seems adapted to extend the real benefits of education throughout the land.

Notes of a Lecture on Teaching to Spell. II.

A useful variation of the ordinary dictation of common sentences, is the plan of taking up by themselves those words which constitute the main difficulties in the orthography of our language. These difficulties are thus classed: 1. Words of the same pronunciation, but different in spelling, as blue, blew. 2. Words spelt alike, but differently pronounced and applied, as *lead*, to guide, and *lead* a metal. 3. Words alike in spelling and pronunciation, but different in meaning, as *butt*, a barrel, *butt*, a mark, and *butt*, to strike. 4. Words with silent letters, or unusual sounds of one or more letters, as knee, and cinque.

These words may be spelt, after giving as much information respecting each, as may enable the child to distinguish one from the other, or they may be embodied in sentences and written from dictation. Thus, 1. They are about to *alter* the *altar*. The *boy* in the water laid hold of the *buoy*. 2. His *conduct* will *conduct* him to povery. It was *meet* that he should *meet* his cousin. Words of the fourth class may be put separately into sentences; as, he dislocated his *knee*. The rules for spelling may be referred to occasionally, as words come under notice, which illustrate them. For a good classification of the difficulties of spelling, as well as for the rules, you are referred to "Sullivan's Spelling Book Superseded."

It sometimes happens that a teacher in this exercise is mindful only of the spelling; you, however, will not seek only a correct exercise, but a neatly written one, having well-formed letters and strictly horizontal lines. Guard particularly against the dishonest practice of copying from each other's slates; be always willing yourself to give every proper help, but determinately check every attempt to obtain it clandestinely.

The Rev. H. W. Bellairs judiciously remarks, "My own impression is that dictation may be given throughout an ordinary school, and that the slate may be made a very important instrument of moral discipline, as well as of mental exercise. To this end, as soon as a child begins to learn reading, he should also learn writing, and as soon as he can copy letters, they should be dictated to him. In this way the memory, and other faculties of the mind, will be brought at once into exercise, and his intelligence generally be improved. Great pains should be taken to make the lesson one of moral discipline; with this view no copying from each other's slates should be allowed. The children should be taught to consider such as breaches of obedience and integrity.

IV. Method of Transcription.

Learning to spell by writing cannot be done in every case by dictation. With the little ones it involves a loss of time, as they are not prepared to make too independent an effort. A more profitable plan is for them to copy by paragraphs from their reading books, or what serves the same purpose and saves the wear of the books, from the detached leaves of such reading books as may have became too imperfect for use in class teaching. Here, as the children will complete their portions at irregular intervals, the teacher will examine all the exercises himself.. The correct form of every misspelt word should be written on the back of the slate, and shown up when done. Whenever an exercise is not done with as much neatness and care as may fairly be expected, in any given case, let the whole be re-written.

V. Composition.

This method is employed mostly in the upper section, and is well adapted to profit those sufficiently advanced for such an effort. The particulars will be given in a separate lecture.

VI. Miscellaneous Methods.

Besides those methods in which spelling is the immediate object, there are various incidental occasions which may be seized for effecting the same purpose. Such, for instance, as gallery lessons, or lessons of arithmetic, geography, grammar, &c. In these the difficult words, belonging to the several subjects of instruction, may be spelt with propriety and advantage. A simultaneous spelling of a difficult word may frequently be made the means of rousing the weariness of a whole class, in the same way as physical exercises do, which, in fact, it is to a certain extent. The black-board should be used in such cases, especially with the juniors, that the word may be made an object of actual perception.

R.

Notes of Lectures delivered to a Normal Class.

I. THE TEACHER.

II. His Qualifications.

The notion, now fast dying out, that any one is able to undertake the office of the Schoolmaster, was a great mistake. This office in fact demands such peculiar qualifications as are rarely combined in one individual—qualifications not innate, and only acquired as the result of hard labour and long experience. Let it be your deep conviction that these qualifications are not—as an article of dress—assumed at pleasure. Consider the estimate which the Government has put on them in not only requiring a five years' apprenticeship, but also in exacting at least a twelve months' instruction in the best methods, and in the practice of the art of teaching. Let it be your earnest persuasion that the acquisition of the required qualifications is worthy your most vigorous and untiring efforts; and do not for a moment suffer any feeling of dissatisfaction at being required to take part in the study of method, or the practice of teaching.

Any person proposing to become a Teacher should be in possession of a good constitution; as, where this is not the case, the office will be likely to injure the health and shorten life; hence persons of weak physical powers are soon broken by its arduous toils. The purposes of discipline and instruction require also the possession of a keen eye, a quick ear, and a full, clear, and well modulated voice. If these personal qualifications are wanting there is little hope of success.

About youth there is a ceaseless activity, an unwearied energy, and great elasticity—the mind and its instruments, when the child is awake, seeking constant and varied employment; hence the necessity for the Teacher to possess great physical energy and untiring activity, as it is evident that one whose temperament is dull and phlegmatic, is here out of his element. Without such qualifications the School-machinery is a drag, and a sense of irksomeness and misery is associated in the childrens' minds with its exercises; school ceases to be a pleasure, and the moment of dismissal is hailed as that of liberty from tyrannical and unnatural restraint.

Children, for the sake of health and comfort, as well as out of consideration for others, should form habits of cleanliness in person and dress. It is also highly desirable that they should acquire good and quiet manners, and that they should cultivate civility, courtesy, consideration for the feelings of others, and a disposition to oblige. In these matters example is more powerful than precept; and hence the Teacher should be a pattern worthy of their imitation.

An essential qualification for a successful Teacher is a *love of Education*. A few of the elements of such love are, sympathy with children so as to participate in their feelings, and appreciate their wishes and wants; interest in the developement and culture of their faculties; and an intense desire to promote their present and eternal well-being. No place has such attractions as the School-room for such a Teacher; he enters it early and willingly; he works in it with pleasure—his whole manner shewing the children how much interest he has in them; he lingers about it after his labours are over, and tears himself away from it with reluctance. To such a Teacher the discouragements and difficulties of his position are no reason why his work should become irksome, but only furnish additional incentives to labour with increased vigour. Such a love as this should be assiduously cultivated. Some of the means of doing so are—making children subjects of study, closely observing the opening of their faculties, and devising plans for their benefit. To get love for an object, you must work for it.

A knowledge of *mind* as the material on which he has to operate, is as essential to a Teacher as that of the body is to the physician, or of plants to the gardener. A knowledge of its laws which are as fixed and certain as those which obtain in any department of physics, will not merely enable him skilfully to adapt the matter of his instruction to the state of his pupils, but will furnish him with certain means for their discipline and instruction; without this knowledge he is as one stumbling in the dark.

Closely allied to this is acquaintance with *method*. Teaching, as an art, is a combination of certain modes of developing the mental faculties, and of presenting instruction so as to secure its reception. Thus it embraces a knowledge of the methods themselves, as well as practical skill in their use. You are at present in the infancy of its study; your knowledge is certainly being extended and corrected daily, but it will require from you years of laborious application to acquire thoroughness and skill.

The moral qualifications of a Teacher are, in relation to himself, punctuality, truthfulness, and self-control.

We speak of punctuality as a moral quality—because an unpunctual Teacher is a dishonest one; for, to say nothing of his engagements with his employers, he robs his children of their time.

"Another point in the character of a Teacher," writes Professor

Moseley, "the cultivation of which is very important, is *truthfulness.*" This feature of a Teacher's character is seen in the estimation in which he holds appearances. The temptation to certain forms of untruthfulness is very strong. Take the case, for instance, of the annual visit of the Inspector, on whose report so much, it may be, depends. The data on which that report is founded are necessarily so imperfect; the conclusions drawn, often so erroneous; the amount of labor and its results so impossible to test, that the Teacher has a strong incentive to get up something to deceive him. But the consequences of such a practice are disastrous in the extreme; and the Teacher at any risk should preserve his truthfulness. He should encourage it in his children, by commending confession, by reprobating the disposition to hide faults, and by strongly discountenancing furtive looks on their neighbours' work. The Teacher's truthfulness will to a great extent be reflected in the childrens' practice.

Self-control is an important qualification of a Teacher. "In some Schools," it has been said, "there is an alternate laxity and strictness—the Teacher at one time allowing advantage to be taken of his good nature, and discarding the conventional restraints proper to his office, at another, recovering his ascendancy by loud threats and violent punishment." Such a Teacher's influence cannot be good. He who has not control of himself cannot have of his children. "A Teacher has himself to watch rather than his children."

The moral qualifications of a Teacher, in relation to his work, are industry, patience, and perseverance.

The duties of an elementary School are so multiform, the subjects of instruction so numourous, the ages and attainments of the children so various, the attendance so fluctuating, and School-life so limited, that nothing but exact and incessant industry will enable the Teacher to realize even tolerable results.

Patience is necessary to the successful prosecution of his work. One of the things by which it is most frequently tried is finding that he has not succeeded in imparting the instruction he intended, and this is imputed it may be to the waywardness of the children. Now in this the Teacher is very liable to err. A safer rule would be to believe that wilfulness does not exist in them. Dull and negligent they may be, but seldom wilful. Besides the Teacher whose patience is getting exhausted, is not in a position to determine where the fault lies; if anywhere, it is just as likely to be in himself as in them. "Of Dr. Arnold it is stated that he had once got out of patience and spoken sharply to a pupil, who was a plodding boy, and had taken great pains—when the pupil looked up in his face and said, 'Why do you speak angrily, Sir? indeed I am doing the best I can.' Years afterwards he used to tell this story to his children, and said, 'I never felt so much ashamed in my life; that look and that speech I have never forgotten.' "

The difficulties of a Teacher's position are many, but to persevere is to conquer. At times reflection on his difficulties and discouragements may cause his efforts to relax and tempt him to abandon a position so full of care and trial; but let him not faint, for in due season he shall reap. His work, like that of the gardener, does not at once exhibit its results; but they are not less sure. Difficulties must be encountered and overcome, and though the results may not be what he could desire, yet he ought to persevere. Sometimes the partial failure of a Teacher's labor is owing to his own instability. His plans and methods are constantly changed; under such circumstances, success must not be expected. Plans and methods should be carefully selected, but when once formed should not be hastily abandoned, or lightly changed.

In all the intercourse of a Teacher with his children, his conduct should be marked with the strictest impartiality. There should not be a doubt as to the even-handedness of his administration. Where there is, an evil and rancorous spirit will be fostered, which will counteract his efforts for their well-being. Favorites in a School are its *bane;* a wise Teacher will not have them.

In conclusion we would urge a careful consideration of the following remarks from the "Church Schoolmaster."

"Observation and self-discipline assist greatly in the attainment of needful qualifications. Neither treatises on Education, nor Training Colleges, nor any system, however good, will alone suffice. Great helps they are, and to be thankfully used, but in a measure at least, *the Schoolmaster must be formed by teaching.* Besides profiting by the labor of other minds, he must have thought out plans for himself, and have brought them to a test of his own practice. Having clearly defined the purpose which he has in view, he will do nothing at hazard, but daily bring the result of deeper thought and wider experience to bear upon his round of duties. By the contact of his own mind with the minds of children, he will see more clearly, why he has failed in one point, or to what he may ascribe his success in another; and will learn to adapt the materials and the modes of his teaching to the wants which he has discovered. He daily observes fresh traits of character; and having learned how much belongs to the individual and how much to the nature which is common to all children, he turns his observation to good account. Former plans are corrected, and the ground laid more securely for the future. No good Schoolmaster will think he has reached the utmost limit of improvement. Every day will find him making progress; every year will be a stage of advancement. The work is full of interest—evergrowing, and ever new. Many of the best and ablest minds are intently occupied with what *he* has made the business of his life. If he has humility to come down to the level of a child's capacity, and patience to bear with the wayward and slow; if he has faith in the power of religious Education, and love to children after the example, and for the sake of Him who is their Best Friend, he need not fear that he will want encouragement. Let him set his mark high. His strength, by God's grace, will increase with the duty which calls for it; the ability will come as the work requires it. Trials, and hindrances, and disappointments, he must encounter; it is the common lot; but that he could have chosen a happier or a more useful life, who will venture to say?"

G.

Philosophy of a Candle.

Many people understand the use, but few comparatively, the philosophy of a burning candle. It is probable, for there is much that is natural in the idea, that most persons imagine that the light proceeds from the wick and that the wick is burned for the very purpose. It so happens that the light would be the same if the wick was altogether inflammable. The wick, however, has its use. By its means the melted tallow rises upward, its long fibres side by side serving to form, as it were, narrow tubes through which the tallow rises by *capillary attraction*, just as water rises through a sponge. The material of which the tallow is composed (which, for the sake of young chemists, we shall call by their proper names—hydrogen and carbon) after it has risen up the wick is burned, and from its combustion the light is produced which turns our darkness into day. A close observer of a burning candle will distinguish three different areas of a conical shape over the flame. The inner one, nearest the wick is dark, containing the tallow in a state of vapour which does not burn for the want of oxygen, not being in contact with the outer air. The second or intermediate one is partially in contact with the outer air, and here the brightness is created. Our young chemists must understand that the luminous nature of this portion of the flame arises from the fact that hydrogen requires less oxygen to set it on fire than does carbon, but the hydrogen thus set on fire has such great heat that it makes the carbon intensely *white*. In the outer area called the area of *perfect* combustion, the whole of the carbon is consumed, unless indeed, as in a bad candle, it escapes in smoke, which is nothing but a cloud made up of the black dust of carbon or charcoal. The last area is called the area of *no* combustion, and the central one, the area of *partial* combustion.

It will be seen then that flame is vapour so hot as to give out light and heat. This vapour in the dark area does not burn for want of oxygen; the vapour consists of carbon and hydrogen; and the light proceeds from the carbon becoming white hot during combustion.

Notes on Chemistry.

HEAT II.

Conduction or Convection.—Substances vary in their power of conducting heat. Gold has the greatest conductive power; fur and feathers the feeblest. Exp. Take a long glass vessel containing hot water, with a lid that fits it with 3 or 4 holes into which short rods are fitted composed of substances having a different conducting power, such as copper, zinc, tin, lead, and cork. Place a piece of phosphorus on each, which will ignite in the order of the conducting power. Bodies *feel* colder or warmer according to their conducting power. Flannel, being a bad conductor, keeps us from becoming rapidly warm or cold. So it also preserves ice, wrapped up in it, from melting. Water and all fluids are bad conductors of heat. Exp. Water may be made to boil on the top of a glass tube, while the lower portion remains cold.

Convection is the process by which particles becoming expanded hy heat are set in motion. Heat is thus conveyed, water placed underneath, until the whole boils. Exp. Currents may be shewn by placing a large vessel of water, with a large piece of litmus thrown in, over a light. These currents flowing upwards vertically from the centre, ond descending by the sides of the vessel are caused by *convection*.

Radiation, or passing away of heat in every direction, occurs with all substances. Depends upon the nature of the surface. Bright vessels both absorb and *give out* heat the most slowly. Radiation varies in vessels as the reflecting power. Exp. 1. A bright kettle will keep water hot longer than a sooty one. Exp. 2. A bright vessel wrapped in flannel will cool more rapidly than without it. Dew collects on green herbage more plentifully than on a gravel walk or barren mountain side, because the former radiates its heat the sooner.

Notes of Lessons.

Outline Notes on the Bread of Life.

John vi. 35.

I. Introduction.

Notice circumstances out of which the statement grew. Jesus had fed a multitude, walked on the sea, was sought for by the people, for what they could get. v. 26. They ask for a further proof of his mission, and refer him to the "Manna." He then according to his custom from this proceeds to their instruction.

II. Lesson.

1. Bread yields enjoyment, all have pleasure in eating, it is only momentary, but it is pleasure. What bread is to the body, Christ is to the soul. He is the source of true enjoyment; religious people are happy, because they have Christ. Acts xvi. 25.

2. Bread contains the principle of life, it is turned into blood which is the life; so Christ is the life of the soul. Without Christ the soul is dead; "Dead in trespasses." Compare Col. iii. 4. Jno. xi. 25. Jno. xiv. 6. 1 Jno. v. 11, 12.

3. Bread is necessary, without food we perish; so without Christ the soul must perish.

III. Application.

1. Do you prefer the enjoyment of the soul to that of the body?

2. Have you found Christ? Are you alive or dead?

Geography of England, No. X.

MEANS OF TRANSIT.

What a road is—in many countries no roads, hence difficult to travel—holes here and stones there—up hill and down dale—mountains and rivers to cross. Very much the case in England till the Romans came, the soldiers made several good roads for military purposes. Suffered to fall into decay, and 300 years ago hardly a good piece of road in the kingdom. As soon as trade began to grow it was found that roads must be made—when it was trifling, goods were carried on pack horses, but waggons became necessary now. The introduction of coaches by Elizabeth led to a little improvement—it was not till long after, that coaches became general, the first coach to York not till 1703—the roads therefore continued full of holes and ruts, and the coaches were so often upset, that if people had far to go, they made their wills first. About 60 years ago the roads began to mend greatly, and now are better than any others in the world.

Coach roads of the best kind called turnpike roads, because of the pike or swinging bar, at which all carriages paid a toll for keeping up the roads—the united length of these roads is nearly 25,000 miles. The other roads are called cross or country roads—united length about 100,000 miles.

In 1830 a new kind of road was

opened between Manchester and Liverpool—on it were two lines of iron rails for a steam engine and carriages to run—hence called a rail-road. Now these roads go to all parts of the kingdom—united length about 5,000 miles.

The great extent of coast line (2,000) gives to England great advantages in the transit of goods—heavy goods can be carried to any part of the coast at a small rate per ton. Again though the English rivers are small, yet most of them are not navigable—the inland river navigation nearly 2,000 miles—where the rivers not navigable, they are continued by means of canals—length 2,600. Thus nearly every part of the country can be reached by a cheap water conveyance—no place exceeding 15 miles from a water road.

The result of such complete means for transit is seen in the ease with which London containing one-eighth of the entire population is supplied with every necessary article of food and housekeeping, and that as cheap as in any other place in the kingdom.

Llama.

I. Structure.

Height, four feet, with a neck three feet in length. Cloven feet, with a spear-like substance behind, which enables him to move over rugged paths and precipices. Face much like that of the camel—ears four inches long, and move with great rapidity. Covered with wool. Order, Rumantia.

II. Habits.

Lives on vegetables. If over-loaded will fall and emit saliva, which though not hurtful alarms its keepers. Flees from strangers with amazing velocity. Drinks more water than the camel. Often seen in flocks of about 300.

III. Locality and Uses.

Found almost exclusively in South America, especially in the mountainous regions. It is used to carry goods over rugged and precipitous places, where other animals would be useless. More than 3,000 employed in carrying silver from the mines of Potosi. It is also hunted for its fleece. Its flesh is excellent food.

E. M.

I. Samuel XVI. 1. 14.

(FOR CRITICISM.)

I *Introduction.*

Verse 1. "Horn with oil." For the purpose of anointing David. We distinguish two kinds of anointing, viz., Private and Public. "Private." They were (says Jahn) only prophetic symbols that the person thus anointed should subsequently govern a kingdom. Give illustrations from Scripture. "Public." This formed the actual inauguration service. Usually performed by the High Priest.

Verse 5. The family of Jesse appears to have been a religious one.

Verse 7. "Height of stature." Among Eastern nations height of stature was regarded as one of the principal recommendations to honour. Saul was noted for his height. Josephus tells us, that when Solomon rode abroad in his chariot, he was escorted by the tallest young men in his kingdom. Herodotus (iii. 20) speaks of an Ethiopian nation which always elected to the sovereign power the person most distinguished for size and proportionate strength.

Verse 12. Calmet and Dr. Hales make David to have been 15 years of age at this time.

Verse 13. "Spirit of the Lord." See Job xxxii., 8.

II *Lesson.*

God being angry with Saul deprived him of his kingdom. Samuel commissioned to appoint Saul's successor. Samuel proceeds to Bethlehem. Summons Jesse and his sons to the sacrifice. Samuel selects Eliab as the Lord's anointed. Admonition of the Almighty. The rejection of the seven eldest sons of Jesse. A messenger despatched for David. David selected for the office. Anointed by Samuel. The approbation bestowed upon him by God.

III *Application.*

"Primary Lesson." God disposes of his favors in a sovereign manner.

"Secondary Lesson." We must not be proud of our attainments, but make it our constant aim, that by the grace of God, holy faith, fear and love may be planted in our heart, then may we hope to be accepted of God.

REMARKS ON THE LAST NOTES.

We had hesitated in admitting the above "Notes," chiefly because they belong to the same class as those criticised in our last number, and to offer a full criticism would only lead us over the same ground again. We have decided to admit them, that we may point out one or two things in which our Correspondent has appeared to misapprehend us.

Referring to the criticism in our last number, for the principles on which the Notes of a narrative lesson should be drawn up, we think that it will be evident that the above Notes indicate that their writer has not a clear apprehension of them.

One error into which he has fallen is that of confounding the *preparation* for Notes, with the Notes themselves. It is very requisite that a complete analysis of the entire subject should be made, and illustrations and information drawn from every accessible source; it is also desirable that these "Notes of Information" should be preserved in a convenient form for ready reference at any after period—in such a form for instance as the very excellent "Explanatory Notes" appended to the Scripture Notes, now publishing, by the Church of England Sunday School Institute, but in the "Notes of the Lesson" it is more desirable that you should properly arrange your matter, and especially that you should exhibit the method by which you intend to work the leading thought into the mind, so as to affect the heart and awaken the conscience.

Now, looking at these Notes, we find in the Introduction matter *prepared*, out of which might be elaborated all that is necessary for the complete understanding of the subject; but there is no indication of the form in which it would be presented, nor of the methods by which its reception would be secured.

Last month we tried to give prominence to the necessity of having a leading thought running through the whole lesson, binding its several parts compactly, and giving unity to the whole. The *Lesson* before us, instead of containing such a leading thought, is a bare analysis of the matter. Here again, there has not been a clear apprehension of the design of the analysis. A complete analysis should be made to enable you to select those particulars, which will best aid you in bringing out the subject.

Owing to the " Lesson" being a mere analysis, with no aim apparent, another chief requsite of this division is wanting, that of vivid graphic description of the various incidents, combined with specimens of the *training* processes, which are to lead the children to educe the various particulars embody my chief truth of the narrative.

Again, what is there in these Notes to lead to such an application as that, either of the primary or secondary lesson? We do not deny that such lessons may be drawn from the narrative,but certainly they cannot from the Notes before us.

In conclusion, we strongly urge on our correspondent, all that we have written in former numbers on Notes of Lessons, assured that the subject is one deserving, of the teacher's best attention, and very intimately associated with the question of success. At the same time we would recommend him, and all young teachers, to read some of the Gospel Narratives, and picturing vividly the scenes to the mind, endeavour to reproduce them graphically with their pen in their own style.

Educational Intelligence.

YORKSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.—The first annual meeting of this Association was held in St. George's Schoolroom, Leeds, on Easter Monday, when seventy-two masters from different parts of the county were present, under whom 107 pupil-teachers are engaged, and 9550 children receive daily instruction. Mr. T. Houghton, of the Manor School, York, was unanimously called to the chair. After complimenting the members on the prospects of the Society, he called upon Mr. J. Williams, the general secretary, to read the report of the past year, which gave a very flattering account of the state of the society generally, and of the several branch associations in particular The report being adopted, and the rules for the future management of the Association agreed to, the several resolutions were put and carried unanimously; to the effect that the professional existence of the National Schoolmaster, renders it necessary to have Teachers' Associations formed throughout the kingdom;—that the stability and worth of such associations depend upon their practical character, and it is therefore necessary that the best modes of conducting elementary education should be the principal points aimed at;—that the meeting could not recognize that instruction as safe which excludes the Bible,—and that, while desiring to have a highly intellectual education, it deems such only valuable as it enables its possessors to understand more clearly divine truth;—that the aid given by the State to the teacher, and for educational purposes, has been attended with beneficial results, - and that this Association will gladly receive any minute of Council or enactment which will secure the teacher, in his profession, while faithfully discharging his duties; —that there are cases of physical inability and distress brought on by professional duties, which can be aided and alleviated only by a society of teachers. The next Annual Meeting was appointed to be held at Huddersfield. Mr. G. S. Carr of Kirkstall, was elected president of the Association during the ensuing year, and the following gentlemen to comprise the committee:—Messrs. J. Heywood, of Lockwood; J. Mellor, of Slaithwaite; W. Schofield, of Huddersfield, J. L. Robson, of Meltham Mills; G. King, of Armitage Bridge; G. Jermain, of Almondbury; and T. P. Wilkinson, of Woodhouse, Huddersfield. Mr. J. Mellor, of Slaithwaite, was elected secretary; and Mr G. King, of Armitage Bridge, Treasurer. After a vote of thanks, to the chairman, the meeting adjourned to the Royal Hotel, where an excellent dinner was provided.

MEETING OF SCHOOLMASTERS AT BIRMINGHAM.—A public meeting of Schoolmasters was held, on the Monday and Tuesday in the Easter week, in the St. Philip's School-room, Birmingham.

Deputies from the Liverpool, Manchester, Birmingham, Warwick, and Leamington, and Northampton Associations; as also, masters from Clapham, Sheffield, Derby, Rotherham, Bridgnorth and other places were present. The subjects discussed were—

1st The union of all Associations.

2ndly Definite text-books for persons reading for Certificates.

3rdly Sub-inspectorship as an office to which able and experienced teachers may be promoted.

4thly Government Annuities on the plan propounded by Professor Moseley in the Minutes.

5thly A fixed "curriculum" of work for each school, to which the Inspector shall confine his examination.

Resolutions were passed affirming the above; and requesting the Secretaries o those Associations present to draw up a plan of details necessary for carrying out the same; which plan will shortly be submitted to all the Associations of England for their consideration.

The above is but a very brief abstract of the proceedings.

INSTRUCTION IN ART.—The following important minute, detailing the application of the Parliamentary Grants in aid of Instruction in Art for the year 1853-4, has just been issued by the Board of Trade:—

"At the Council Chamber, Whitehall, the 22rd day of March, 1853, by the Right Honourable the Lords, of the Committee of Privy Council, appointed for the considerations of all matters relating to trade and foreign plantations.

"My lords take into consideration the estimates about to be submitted to Parliament for affording aid to the Local Schools of Art, during the year ending 31st of March, 1854.

"At the establishment of the schools it was understood that a Government grant was promised for a limited period of three years, upon the condition that a sum equivalent to it was raised in the locality, and in the expectation that after three years the schools would be so established and supported as not to require any further assistance from Government· These expectations have been fulfilled; but, on the contrary, the tendency of the system until very lately has been to encourage increased reliance on Government aid, rather than upon the value of the instruction of local exertions, and has been found adverse to economy. My lords are of opinion that by more judicious arrangements it may be possible greatly to increase the advantages which now result from the outlay of so large a sum of public money; and while they do not propose to withdraw grants from the places which now receive them, they are desirous to introduce a system of greater efficiency and economy, by which the independence of the local bodies may be increased, and the objects of the parliamentary vote more adequately attained. My lords desire to relieve the localities altogether from the obligation to raise a sum equivalent to the parliamentary vote, and instead, to leave the whole general management, and the control of the cost of it, entirely to the local committees. In future, the local committees will not be required to return to this board any account of their local expenditure, or of any receipts from subscriptions or donations; each local committee will therefore, determine for itself what premises shall be used—subject, of course, to their being considered by my lords as suitable for the purposes of instruction—what rent shall be paid, what furniture provided, what managing officers, servants, &c. shall be engaged, and what shall be the cost of general management.

"My lords, on their part propose to confine the parliamentary grants wholly to the promotion of instruction, and even in this point to exercise control only so long as the local committee elects to receive the parliamentary aid. Their lordships would view it as the highest mark of the progress and success of art education in any locality to find that the committee preferred independence of the Government grant altogether.

"My lords will require that the parliamentary grant for the year ending 31st of March, 1854, should be paid to the following objects—the present masters' salaries; and increase of masters where necessary, especially for affording instruction to public schools; pupil-teachers; and to deserving students in holding scholarships both in local and metropolitan schools; and to students in training to become masters; lectures and examples for teaching. After communication with the local committees, my lords will apportion the grant to these respective items.

"As the fees paid by the students may be considered as the product, partly, of the grants furnished by Parliament, and partly of the funds raised in the locality, my lords will require as a condition of receiving any parliamentary aid that an equitable portion of the fees shall be applied towards instruction, and in accordance with their minute of the 28th January, 1853, and for the reasons given in the letter of the 30th June, 1852, which has been sanctioned by the Lords Commissioners of Her Majesty's Treasury, they prepose that such portion of the fees shall be paid to the master or masters of the school as part of their income. "Henry Cole, Secretary."

Superannuation Fund for Schoolmasters.—A deputation of London Schoolmasters had an interview with the Secretary of the Committee of Council on Education, and the Rev. H. Moseley, at the Council office on Thursday, March 24th, upon the subject of a superannuation fund for Schoolmasters. The deputation urged the importance of the adoption with a few modifications, of the Rev. H. Moseley's scheme which appeared in the Minutes of the Committee of Council upon it, that their Lordships would not suffer much time to elapse before doing something in this important question, which would be of extensive benefit to the elementary Teacher.

Prize Essay on the Training of Pupil Teachers.—It will be observed from an advertisement in our present number, that the London Church Schoolmasters' Association have resolved to offer a Prize for the best Essay upon the Training of Pupil Teachers. We refer our readers to the advertisement itself for further particulars, and trust that many of them may be induced to become competitors for the prize, not so much for the sake of the sum which is offered, as for the great amount of good which may be done by putting their experience in a form, which may be useful for the guidance of those who have the task of training that class of youths, from which our future Schoolmasters, for the labouring clasess are destined to be chosen.

Cheshire Church of England School-Masters' Association.—The Third half-yearly meeting of this Association was held on Friday, April 15th, in the new schools at Astbury, and attended by upwards of 40 Clergymen and Masters, among whom were the Ven. Archdeacon Wood, the Rev. J. Armitstead (President), and the Rev. Offley Crewe, (Vice President.) The business of the day commenced with the devotional exercises of the school, conducted by the Rector, the Rev. O. Crewe. The following lectures and lessons were then given according to previous arrangement:—

1. On "The use of the Black-board," by the Rev. F. Tearle, B.A., Curate of Astbury.

2. Two methods of giving a Dictation Exercise—one by Mr. Rider, Kidsgrove, and the other by Mr. Wade, Astbury.

3. On "The Church Catechism," by Mr Lord, Bollington.

4. On "The causes of the different depths of Rain," by Mr. Bailey, Sandbach.

5. On "The Analysis of a piece of Poetry," by Mr. Wade. Astbury.

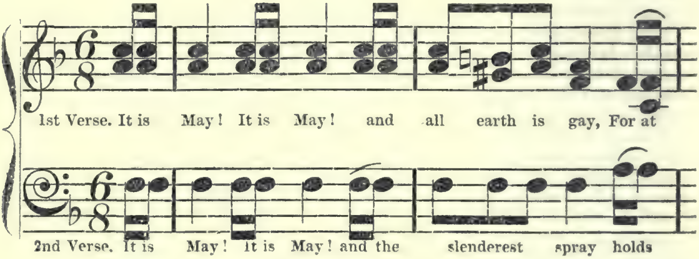
At the conclusion of the lessons, the party sat down to dinner at the Egerton Arms, Astbury. The Rev. J. Armitstead in the Chair, and Ven. Archdeacon Wood in the Vice-Chair. After the cloth was removed, a spirited conversation was kept up for some time on the morning's lessons, and other subjects of a very interesting and practical nature.

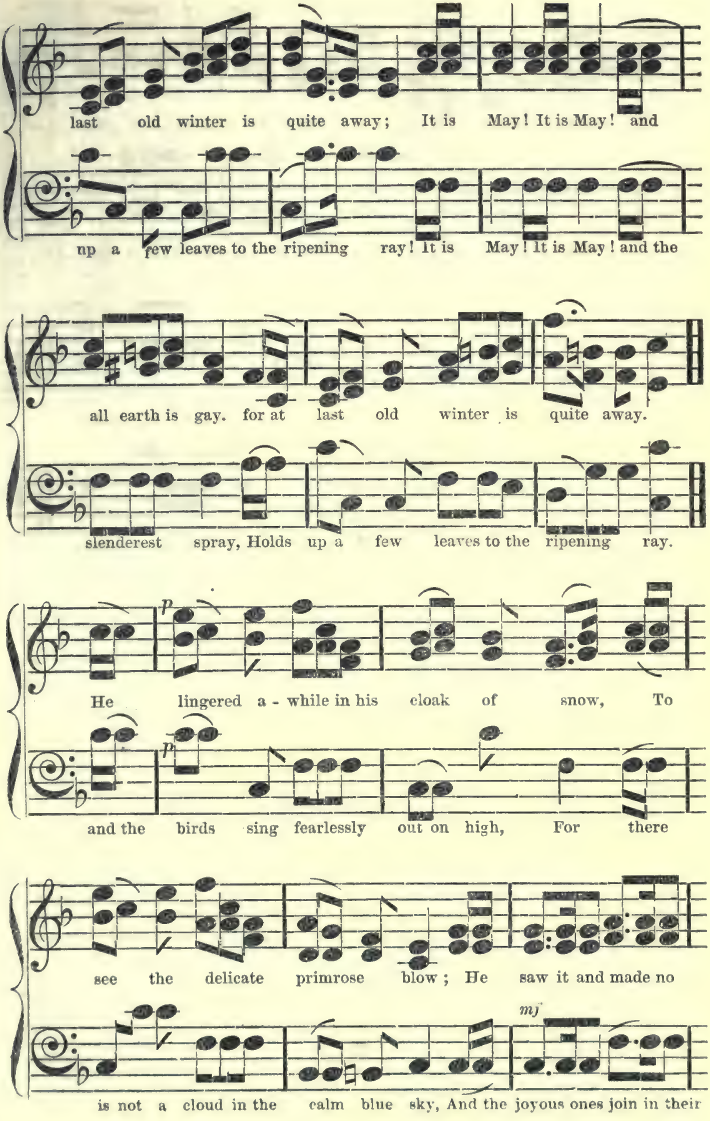
The impression left by the meeting was most favourable; every one appeared to be thoroughly interested in the proceedings of the whole day. The Association evidently works well, and if the same admirable tone and good feeling, which pervaded this, characterise all its future meetings, the Association cannot fail to prove "a valuable acquisition to the schools of the neighbourhood."

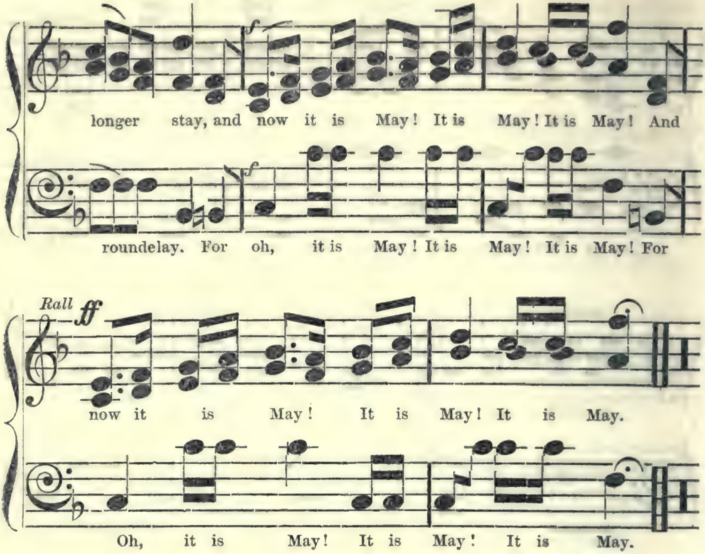
Song for May.

Poetry, Anonymous, Irish Book.
Music by Henry Roe.

Gracefully.


1st Verse. It is May! It is May! and all earth is gay, For at
2nd Verse. It is May! It is May! and the slenderest spray holds


last old winter is quite away; It is May! It is May! and
up a few leaves to the ripening ray! It is May! It is May! and the
all earth is gay. for at last old winter is quite away.
slenderest spray, Holds up a few leaves to the ripening ray.
p
He lingered a - while in his cloak of snow, To
p
and the birds sing fearlessly out on high, For there
see the delicate primrose blow; He saw it and made no
mf
is not a cloud in the calm blue sky, And the joyous ones join in their


longer stay, and now it is May! It is May! It is May! And
roundelay. For oh, it is May! It is May! It is May! For
Rall ff
now it is May! It is May! It is May.
Oh, it is May! It is May! It is May.

3rd Verse.

It is May! It is May! And delights that lay.
So chill'd and enchained beneath winter's sway,
Break forth again o'er the kindling soul;
And soften and sooth it and, bless it whole;
Oh! thoughts more tender than words convey.
Sigh out—It is May! It is May! It is May.

Correspondence.

Sir,—There is an inquiry in your Magazine for last month by some Pupil-teacher respecting their attendance at Church and School on Sundays, and as I feel sure that this is a point of importance to many Masters, I would venture a few observations upon the subject.

I would first ask (without reference to precedent), is it the place of a Master to instruct those children on a Sabbath whom he teaches on a week day? and is it to be required of him that he take the charge of those children in the House of God?

Taking upon myself the position both of querist and respondent, I say to the first question, I think that a Master who conducts a School five days in the week, educates his pupil teachers out of school hours, sets apart a portion of Saturday for their instruction (walking out, and conversing with them), and besides this, studies as diligently as may be to preserve his own intellectual status, may well be supposed to have done a week's work by Saturday evening, and if other teachers could be found to conduct the Sabbath School, he would have no cause to accuse himself of neglect of duty if he were to do no more than teach a small section on that day.

To the second query, I would offer, as my opinion, that it is inexpedient to have children congregated in one particular spot in Church. Many Schools on the Sabbath day consist of a hundred children, and a Master is often expected to march them to Church in soldierly order, to watch them there for two hours, to march them back to School and then dismiss them; this procession is often acted over twice on the Lord's Day. And how does the Master enjoy the public service of his Heavenly Father? How does he approach the Throne of Heavenly Grace? Divested of all the cares of the world, and his thoughts and affections and heart raised, together with his voice, to where Christ sitteth at the right hand of God? No! Let those who have the care of 70 or 80 children say if their whole attention is not engrossed in watching, so that their restlessness shall not disturb, or their tricks attract attention from the congregation. And are the children themselves gainers by this method, are they influenced by the example of their parents, are they questioned by their parents as to the subject of the discourse, &c.? I think not. Their parents know that they can have them taken off their hands nearly all day, and so the father lies in bed and the mother is engaged in preparing the weekly feast. In the afternoon there is generally a lounge or a chat. In the evening there is some chance of the parents coming to Church, if it be not so fine that they are tempted to stroll, or so hot that they cannot sit in-doors, or so cold that they like to sit round the fire. Then I affirm it is not expedient for the Master's sake, for the children's sake, that children and parents should be separated during that part of the Sabbath in which God is publicly worshipped and that that system which effects that separation and enslaves a man on the Sabbath who works hard all the week, for the purpose of displaying galleried leather breeches and antedeluvian caps and blue ribbons, is anomalous and monstrous from beginning to end.

We have generally about 70 children on a Sunday, and I will pledge my word that not THREE of their parents are seen at Church in the morning and not (stretching it to the utmost) a dozen in the evening.

T. C.

[We publish this communication because it fairly represents an opinion held by others besides the writer; we have however a strong conviction that the majority of our readers, so far from sympathizing with the writer. will find in this letter many reasons why these poor and neglected children should be gathered out of their homes, and instructed on the Lord's Day;—why, since their parents have no care to form in their children habits of religious duty, some other person or persons should. And who should feel a greater pleasure in being *in loco parentis* to these unfortunates, than those who are called to perform the functions of the Teacher's office. We admit the laborious character of that office, but Teachers cannot be unaware of its requirements when they enter it; having entered it, they should cheerfully perform its duties, taking as their motto, "Work on Earth, Rest in Heaven." The wearing character of a Teacher's labour has not been overlooked, and it was to us a source of considerable gratification, to learn from good authority, that something will be done this year to secure a retiring pension to teachers holding a Council Certificate. Though the amount may not be large, the certainty of something will, we are sure, remove a load of anxiety from the minds of many faithful labourers in this mission.]

In answer to the enquiry for a School Report, I send an example of what I understan to be intended by the term employed.

* * * National School is a mixed one, and was established in the year 1848.

It is pleasantly situated at the west end of the village, is surrounded by a moderately sized garden, and till lately possessed a play-ground; the whole being enclosed by a young and improving hedge.

On the outside of the school-premises, adjoining the road, there is a piece of greensward, on which the children generally amuse themselves, thus making no use of the play-ground, which is now cultivated. The School is considered large enough for the instruction of eighty children; though the attendance hitherto has not reached that number. Its length is about 30 feet, its breadth, about 20 feet, and it possesses no class-room. The average number of attendants is about 60. the total number on the books 73, and the ages of the children range from 4 to 12 years.

The children are summoned at nine and two o'clock by a bell, after which the duties of the day are commenced by prayer and singing, and closed at four (or five in summer) with the same.

The School is conducted by a master (who has done so since its erection) a pupil teacher, (now in his third year), and a mistress to teach the younger children,

The subjects taught are Grammar, Geography, History, Arithmetic, Reading, Writing, and Religious Knowledge.

The mode of teaching is chiefly simultaneous, or as it is sometimes called, the collective method.

The instruction is imparted to the children upon the analytic, as well as the synthetic principle.

The subjects are taught in classes, of which there are five; the desks being only used for writing, on account of their inconvenient size for use in other subjects.

The School is pretty well furnished with books and apparatus, but a few more maps would be useful.

There is a Sunday School carried on in the above room, which is attended by about thirty children, most of whom receive instruction in the Day School.

The charge per week for each child is three-halfpence.

[The sender of the above Report will be obliged to any of our readers, who can, with certainty, say how far this example meets the requirement.]

Sir,—I should be much obliged to any of your correspondents who would inform me how eighteen or twenty infants might be quietly, yet instructively, employed in a Mixed School.

A VILLAGE SCHOOLMASTER.

Sir,—I shall be extremely obliged if you or any of your correspondents can inform me, through the medium of your valuable Papers, of any book which particularly treats of the adaptation of the structure of animals to their habits.

W. D.

[A Schoolmaster makes the following enquiry, "Should the Ballot be resorted to for raising the Militia, will Schoolmasters be exempt, or not? As the Ballot will have to be used in some places, I should be greatly obliged, as would many of your readers, for exact information on the subject." Perhaps some of our correspondents can supply the exac information required.]

Sir,—Would any of your readers inform me what plans they have found, by considerable experience, to be the most effective in securing an early and regular attendance of children at the opening of the school. Also, in the case of those who do not find their way into their places before prayers, what kind of punishment has proved effective. And I should be yet further obliged to any brother Teacher who will give me information on these points, to add, in connection with the latter, upon what principle in the economy of human nature he accounts for the success of the punishment inflicted.

ENQUIRER.

NOTICES OF BOOKS.

Christian Instruction.—Rev. W. Dalton, B.D.—Hamilton and Co.—This work contains a course of Instruction, "founded on the Catechism of the Church of England," arranged in three successive steps. The First Step is designed as an introduction to the Catechism. The Second, contains a portion of the Catechism, under the heads of Christian Covenant, Creed, Commandments, and Sacraments. The Third, contains the remaining portion of the Catechism, under the heads of Nature and Constitution of the Church of England, in its relation to the Church of Christ, and its Rites and Liturgical Services. An appendix is added, giving the Articles, with a large collection of Scripture Proofs under Analytic headings. From the slight analysis we have given it is evident, that the arrangement is as methodical as it is comprehensive; and the result of a close examination of the book, shows that the minutest detail, of the several parts, has been very carefully worked out. What we consider to be a drawback on the value of this work is the employment of the mode of of question and answer. It is a well-known fact, that indolent teachers do almost invariably rest satisfied with the answer as given in the text. Now it often happens, that the answer given contains an incomplete proposition, so that though a great truth is involved, the child fails to obtain a conception of it, as the complete idea is wrapt up in the parts, belonging one to the teacher, the other to the child. We the more regret this in the work before us, as in other points its character is so very superior. We have met with no *single* book containing so clear and satisfactory an exposition of the Catechism and Liturgical Services of the Church of England, and we therefore cordially commend it to the attention of Teachers preparing for Government examinations, or who are charged with the instruction of Pupil-teachers.

Lessons on Scripture Evidences.—Rev. G. Fisk, L.L.B.—Sunday School Institute, 169, *Fleet Street.*—The commercial title of this book fails to indicate its precise character, we therefore give it in full as found on the title-page "Four Specimens of a Practicable Method of Teaching Christian Evidences. to Bible Classes and Sunday Scholars." Omitting for the present, the immense importance of the subject specially developed in these lessons; this book should present great attractions to Teachers. It is perfectly unique, as we have here "not a series of such perfectly adjusted catechetical lessons as might be prepared for the press in the study—(a theory and not an example)—but a genuine experiment"—and moreover a worthy example of perfect truthfulness, such as is rarely found in book-making—the lessons being taken down verbatim by a shorthand writer, and printed from his report with their defects and imperfections, that "teachers might see what can be done, how to set about it, what to aim at, and what to avoid." Here then still leaving out of consideration the subject-matter of the lessons, the Teacher has fully registered the exact steps by which a powerful and well-trained mind endeavoured, not dogmatically to cram, but healthily to develope, a particular course of instruction, and therefore full, both of interest and instruction to the Teacher. We could have wished that our space permitted an analytical investigation of the several steps in the first chapter; we cannot however do this, bnt most earnestly recommend Teachers to do it for themselves. The subject itself is one of considerable importance, especially to Teachers who labour in dense populations, where unhappily a large amount of infidelity is known to exist

The Young Ladies' New Guide to Arithmetic.—John Greig.—Simpkin and Co.—The most noticeable feature in this Arithmetic is the character of the practical questions, being most of them on domestic affairs: that is, the arithmetical calculations are just such as are likely to be required in house-keeping. To the ordinary rules is added a section on bills of parcels, book debts, receipts &c. The whole has been revised and corrected by Mr. S. Mayward, and may be recommended as a good elementary manual for young ladies.

The Educational Record, No. XVIII.—Partridge and Oakey.—This number contains the usual information respecting the operations of the British and Foreign School Society, during the concluding quarter of the past year. There are besides, several articles of considerable value, the one on the languages of

Europe is particularly good, and though concise, is yet remarkably clear. The Time Table of that leviathan of Elementary Schools—the Boro' Road, Model, is given, and to those studying school organization will have a special interest. Notwithstanding the limited size of this tiny quarterly, it contains, for its size, more than an average quantity of really valuable matter for elementary Teachers.

The Pupil Teachers' Historical Geography.—A. Boardmam.—Allan, Paternoster Row.— This book is the result of an attempt to supply a felt deficiency in the text-books required by pupil-teachers. The great merit in a work of this kind, dealing altogether in facts and dates, is perfect accuracy; and in cases where considerable difference is made to exist, as compared with standard authorities, the authority for a new reading should be given. Thus Martin in his "British Colonies" gives the following areas: Heligoland 1, Malta 95, Antigua 108; in the "Historical Geography" they stand Heligoland 5, Malta 100, and Antigua 93: such differences should have been accounted for. We observe too, that the facts are not always accurate; for instance the defeat of Tostig is put at Stamford in Lincolnshire, instead of Stamford-bridge in Yorkshire; and Whitehall is said to have been built by Wolsey, whereas the old Whitehall of Wolsey, and the Whitehall of Modern times are perfectly distinct. Wolsey's was reconstructed by James, and destroyed by fire in 1619. The present Banqueting House was proposed by Inigo Jones as a part of a new and splendid erection. We think moreover that those sections which relate to Roman Britain, and the times of the Heptarchy, together with that referring to our possessions in France at different periods, are too limited, as compared with the other parts of the book. We sincerely regret the existence of the defects we have named; inaccuracies in a book of this kind go far to destroy that confidence which a Teacher must always desire to have in a text-book. We have dealt the more gently with this work, as considerable allowance must be made for attempts to occupy new ground; we at the same time hope for the sake of those specially interested in it, that the compiler, as soon as a another edition i called for, will give it the benefit of a thorough revision.

A Concise View of Ancient Geography, with Seven Illustrative Maps.—Rev. W. H. Bond.—Simpkin and Co.—The idea involved in this 'Concise View' is one that but a few years since was held by some Educational Reformers as an erroneous one. To study maps was thought to be a complete waste of time A sounder doctrine, as we think, is now held, and is moreover authoritatively expressed. In the Council Report for 1851, the Rev. H. Mosely H.M. Inspector of Normal Colleges, makes this remark "the schoolmaster should have learned his map as he would a book: its outline should be sharply and distinctly in his mind." Mr. Bond's work is exactly adapted to accomplish this in the matter of Ancient Geography. The maps, which are given separately because of their size, are very clear, and as far as we have examined, correctly got up; the text book is carefully arranged, with the ancient and modern names, side by side, and both accented. The notes, biographical, chronological and historical are numerous and well selected. The Text-book and Maps form together a compact and valuable apparatus for laying a sound foundation in Ancient Geography.

PAPERS FOR THE SCHOOLMASTER.

No. 28. JUNE 1, 1853.

Art Education.

All who remember the amount and nature of the instruction given in our Schools a few years ago, are compelled, when they look on their present condition, to acknowledge an improvement both in the methods, as well as in the staple of Education. The whole of the so-called Education of the working-classes consisted in being taught to read, generally very indifferently; to write, often badly; and to have a slender acquaintance with the "first four rules" of arithmetic, and not unfrequently it fell far short of even so low a standard. An evident advance has been made from this state of matters, so that grammar, geography, and history, are subjects on which we should now be surprised to find the children of any School altogether ignorant.

But notwithstanding the great advance which the last few years have witnessed in educational matters, we feel compelled to confess that we have as yet scarcely passed the threshold of improvement. We have in some measure learned "how to teach;" but as to "what to teach," we are to a great degree undecided. Setting aside, for the present, that religious training which should rather underlie and pervade every system of Education, in order to render it worthy of the name; which should we pronounce to be the most important of our present subjects of instruction? Undoubtedly the whole superstructure must rest upon an ability to read, and that fluently, accurately, and intelligently, so as to evince a full comprehension of the subject. Arithmetic may subserve the business of life, writing facilitate its intercommunications, but it is the ability to read, and that pleasureably to the reader, which will in after life most conduce to the continuance of self-education. If the pleasures of knowledge in any of its varied forms have once been made attractive at School, we may safely leave the awakened mind of the intelligent reader to add continuously to its ever-increasing stores of information.

The advantage which we assign to the ability to read is not unnoticed by the parent, who too hastily considers the good reader to have completed his education, and straightway transfers him to the mill or the factory, or some one of the various occupations of the artizan. There would be an inducement to prolong the season of School-life if the subjects of instruction were made to bear upon every-day life. We see the more affluent classes of society, choosing for their children places of instruction where in addition to the routine of a liberal education, they may obtain that particular knowledge which is to fit them for their destined positions in life; nor have we any right to regard with wonder, either the disposition of their poorer neighbours to depreciate the branches of their children's instruction which contain no reference to their future destinies, or their unwillingness to postpone the period of their profitable employment. In order to overrule these feelings, we must convince the parents that their children are gaining at school, not merely 'head knowledge,' but that also which will have a practical bearing upon the every-day employments of the future. The introduction of a new element, desirable for its own sake, into education, will be found in many respects beneficial, and our present system will not only be extended, but reinforced and supported by its new ally. This new element we would call, "Art-Education." The mode of its first introduction would naturally be by instruction in drawing, and if it may be said that this is already practised in some Schools, when the children are required to copy upon their slates some object depicted upon the black-board, we answer that the manner in which this exercise is conducted, and the class of objects represented, generally render it of no practical benefit, but rather a mere excuse for passing an idle hour. Drawing, properly so-called, must be the attainment of a readiness of delineation, arising from an accurate perception of form, correctness of outline, an acquaintance with perspective, and some knowledge of the theory and principles of design. The attainment of this object would require the same arrangements of classification, the same amount of labour, attention, and skill which is bestowed upon the existing branches of Education, and would be attended with the most wholesome influence in our elementary Schools. And if it be asked, what would the benefit be? Rather, we would reply, what handicraft is there in which a knowledge of such drawing would not be an advantage? what artizan, who would not derive from it considerable benefit? In the workshop, or the factory, at the bench of the carpenter, in the delicate employment of the engraver, or in the rougher toil of the stonemason it would alike be found useful. One branch of knowledge, at least, obtained at School, would be found a matter of daily practical usefulness, one which it would be worth while to extend the School-period and make some sacrifice in order to obtain, and would not such a knowledge bring with it in after years memories of other subjects acquired at School, which the intelligent and educated worker would not willingly let die? So far, we have advocated Art-Education on the ground of its practical nature, but we would guard our observations against the charge of so utilitarianizing Education as to render the educated artizan but a more perfect machine.

While, however, this new element would meet the necessities of those who have need to earn their daily bread, by making School practical, it would afford freer scope for imparting those other branches of Education which enlarge and elevate the intellect. It would possess besides this, by elevating the taste, the advantage of producing a love of art for its own sake, while it would increase the pleasures of the "educated eye," and substitute the more refined for the coarser sources of enjoyment. Surely these are in themselves no small objects to be obtained, and it is no mean success to have fostered a perception and an enjoyment of the beautiful, whether found in the arrangement of colour, the correctness of form or the perfection of proportion. The very possession of such a gift and capability by many in whom it has been untrained, seems to naturally point it out as a legitimate subject of Education, while as yet we have only addressed ourselves, in some degree to the reasoning faculties, and still more largely to the retentive memory.

After we have decided upon the desirability of such an Art-Education, it becomes necessary to look round us for suitable means with which to carry it into effect. In the first place it would be necessary to "teach the Teachers." For this we find facilities in the multiplying establishments of "Schools of Design," nor can we suppose that the means which have in other respects so highly raised the character and added to the attainments of the Schoolmaster would in this become suddenly inoperative. The introduction, for the future, of such studies into our Training Colleges would be a sufficient pledge for their subsequent extension, and the same agency which has already supplied our shelves with books, and covered our School-walls with maps, would doubtless furnish us with suitable and abundant materials for carrying out this new branch of Education. In many respects would such an addition be desirable. We make no apology for the efforts of the Government in this direction. We are content to repeat that they would elevate the mind of the working man, would present him with new sources of enjoyment, and in the majority of instances would have an influence decidedly beneficial upon the skill required in his daily occupation, affording him, at its close, an innocent relaxation, in the indulgence of pleasures of a more cultivated taste than he has hitherto been enabled, as far as Education has fitted him, to possess. Bearing a name which may sound visonary and theoretical, we see nothing, either as regards Schools or their *results*, but what is desirable and in every respect "practical" in ART-EDUCATION.

We cannot forbear adding to our remarks the following accurate observations, which we extract from the address of the able Superintendent of the Government Department of Practical Art:

"At the present time we all admit that writing is necessary to be taught to every one, and is serviceable in all relations of life, but it may be shewn easily that the power of representing forms by drawing is frequently, if not more, needful. And it is equally useful to all classes of the community: to him who orders a house to be built and pays for it, to him who superintends its building, and to him who actually saws and joins the timber or lays the masonry. All would perform their respective parts with greater power and wisdom, and with greater saving of labour, if they all knew what straight lines were, and possessed the power of making them. But how rare is the possession of this simple power! How many landlords in the country are able to draw a plan of the ground which their houses occupy, or to draw the shape of a cupboard they wish to order from the carpenter! How many manufacturers there are who direct the labour of thousands of persons in producing ornamental works, and realize thousands of pounds from them, but are unable to draw correctly the form of one of their simplest patterns!

Besides a manufacturing, there is also a moral view to be taken of this question. The efforts of all who desire that the people of this country should acquire a power of perceiving and judging forms correctly should be directed in introducing drawing as a necessary part of instruction into *every* school in the kingdom:—this power will also assist them to obtain increased accuracy in all other ways, and therefore become all the more truthful and sensible of God's wisdom."

The Staple of Education.

The faculties of man can, by Education, be developed to a high degree of perfection in every sphere of activity, nor can bounds be placed to the amount or the versatility of knowledge or capacity to which it is possible for him to attain. But again the ability of any given man is circumscribed, all cannot learn everything, life is short; and the circumstances under which men are living, and for which they are to be educated, are many and various. He who would learn everything, learns nothing, or little well; nor is every subject in the same measure important or necessary, or in the same degree adapted for the employment of our faculties. Hence arises the necessity for selecting, with what wisdom we may, from the unbounded dominion of knowledge, that which it will most profit a man to learn; to determine, in short, what should be taught in this or that school, and under these or those circumstances.

In considering the grounds of such a selection, we arrive at some such leading principles as the following:—

1. The subject-matter of instruction should be adapted to the end which the education has in view.
2. It should correspond, in degree, with the capacity and power of the instructed.
3. The necessary should be preferred to the merely useful or important.
4. Regard should be had to individual disposition toward particular studies, and still more to natural ability.
5. Teach what is necessary, but nothing superficially or imperfectly.

We propose to consider these as fundamental principles to be observed in selecting the staple of education, and shall offer a few remarks upon them severally.

(1.) The subject-matter of teaching should regard the end proposed in the education.

The aim of all instruction is two-fold: to form or develope the faculties, and to impart the material of knowledge. The Staple of Education should therefore be not only subject-matter, upon which activity is to be exercised, but also have a value in itself as useful and serviceable knowledge.

The end and object of instruction, as of all education, is no other than that of conducting the pupil towards his calling.

His calling is to reach, as far as may be, "the full stature of a man," to become a good and true citizen, and a honest firm Christian. Let us keep well in view this triple calling, and the three-fold aim of instruction which results from it, and we have three rules for our guidance in determining what subjects to admit into our schedule of instruction.

1. To select such as have most power to develope the whole nature of those instructed.
2. Such as have regard to their social position and calling.
3. Such as will fit them to be in every way worthy members of the Christian body.

(2.) The instruction should be adapted to the power and capabilities of the recipient.

For the apprehension and the efficient working of any course of instruction, a certain degree of capacity and mental ability is demanded, and if those to be taught have not reached this degree of understanding, the instruction which pre-suppose it must not be offered to them. The teacher must discriminate whether they have or have not the requisite grasp, power and maturity of mind, and in drawing up a scheme of instruction for his scholars, his first duty will be to see that no subject comes so early or so late in his *routine* that those in the lower class are equal to the apprehension of that which is being taught, and those above them too easy or too difficult is alike an error: the latter the more fatal How often in this respect does the first instruction in religion fall short of a principle which seems to be self-evident.

(3.) What is necessary claims attention before that which is simply useful or important.

By necessary we mean indispensable to the attainment of any given object. Those subjects, therefore, are necessary in our present case which are essential to the attainment of the *formative* and the *material* object of instruction above-mentioned, or, if we keep in view the threefold calling of children, whatever is indispensable to their development, as men, citizens, and Christians.

As men and Christians, the calling of all is the same.

What is necessary for the attainment of this double object we may therefore call *universally necessary*, as opposed to what is merely *hypothetically necessary*, or essential under the conditions of this or that position or vocation. That the various employment and conditions of social life require various degrees of education, and call for knowledge and activity of very different kinds, is evident; and it would be mere folly to demand from all alike the attainment of the knowledge and activity necessary in all the various relations of life. The effort to learn everything would end in learning nothing; or, at the least, nothing right.

There exists, however, amongst educationalists, some difference of opinion as to what are to be reckoned subjects of *universal* necessity. Such are the subjects, which our national schools, which are for all, and contemplate no particular vocation, must comprehend in their scheme of instruction. We set down as of this class: religious instruction, acquaintance with the Bible, and the knowledge which may enable them to read the whole with understanding. Under the same head our reading, writing, arithmetic, acquaintance with their own language sufficient to enable them to express themselves in it, by word of mouth, or in writing, intelligibly and justly, and a familiarity with that class of facts which we now call useful but shall soon be calling necessary knowledge. As universally necessary, branches of knowledge are also reckoned. Knowledge of the nature of man, bodily and mental, so far as is necessary for the right apprehension of the ends and aim of life, and the preservation of health. Knowledge of nature, so far as is essential to preserve them from superstition, to teach them to find God in his works, and also to enable them to avoid what is noxious and turn to advantage what is useful; knowledge of the earth, and especially the geography and history of their own country so far as to render them intelligent in the discharge of the ordinary duties of life, and to awaken in them an interest in their country; knowledge of the rules of health, and how to act in critical or dangerous circumstances, especially where another's life may be in danger; knowledge of measures, weights, and coins, which are met with in the daily intercourse of business; knowledge of the calendar; knowledge of the laws of the land, so far as concerns them and others of like nature.

The introduction of drawing to our schools as a subject likely to prove of universal utility, will be found elsewhere advocated.

The position and the sphere of labour which we are called upon severally to occupy in the complicated relation of human society is widely different. It is sometimes assigned to us, as in the case of women, by nature, or by circumstances, or possibly we choose it for ourselves. In any case, duly to fulfil the duties of our position, rightly to discharge the requirements of our vocation to our own and others' best advantage, other knowledge and other abilities beyond those which are universally necessary, are demanded, which must in the same manner, at least to some extent, be taught and acquired at school. Such knowledge we call *hypothetically* necessary.

Beside necessary knowledge, there is that which without being absolutely essential to our calling and our object in life, is yet useful and valuable. The necessary must claim place before the useful, the useful before the merely valuable.

It would be foreign to our present purpose to attempt a classification of such subjects of instruction as may be necessary under particular and special circumstances, for the development of those faculties which their condition demand.

Attention should be paid to the natural indication and still more to the natural power of the learner.

But little attention should be shown to the mere presence of inclination towards a particular subject, on the part of the learner, since in childhood this is subject to considerable fluctuations, and not unfrequently is founded upon a false idea, or inability to appreciate the various subjects or their utility, and on want of foresight of the difficulty which accompanies the effort to learn and apply them. In the case of young children a settled and steady inclination will have more weight with the teacher, he will investigate its ground, will seek to inform himself of the object of such inclination, and decide how far it consists with the future vocation of the pupil to give ear to it.

(5.) Teach nothing superficially or imperfectly.

Superficial and imperfect knowledge proves often as fatal as absolute ignorance, since it leads to shallowness and error in thought and results in imperfect and vicious action. Every one cannot learn everything, and the man who crowds into his pupils' minds a confined mass of knowledge, educates him into a wearisome and wordy talker, such as often may be found amongst us, who reason, and speculate on every known subject, without thoroughly understanding any. As the overloading of the stomach on the bodily health, so has the overloading of the intellect on the mental growth, produced most pernicious results. *Non multa, sed multum.* Better a little, and that little, thorough, stable, honest.—*From the German.*

Notes on Chemistry.

HEAT 3. DAVY LAMP.

Coal-Gas mixed with air violently detonates, see Vol. II., p. 185. Apt to be self-formed in mines, which upon admission of air and a candle, produces disastrous accidents, By a series of experiments with a view to an antidote, Sir Humphrey Davy discovered that the conducting power of metal depends not only upon the length of a tube, through which heat passes, but upon its narrowness. If the tube be of a diameter infinitesimally small, the length of the tube may be infinitesimally small. Common wire gauze answers this description, each of its meshes being considered to be such a tube. The Davy lamp is constructed of this gauze surrounding the flame, with certain mechanical contrivances for trimming the wick. The obnoxious gas passes into the inner part of it and there burns with white heat. The gas, which within burns white-hot, suffers diminution of its heat as it passes through the tubes, and not being able to be maintained white hot is extinguished, and can communicate no flame to the outside. This abstraction of heat may be shewn by simple experiments. Exp. 1. A coil of metal wire carefully placed over a burning wick, without touching it, will cause it to be put out; the metal in so close a proximity reduces the heat too much to allow of combustion. Exp. 2. Place camphor upon wire gauze, and light it. It will drop in a melted state through the wire, but will carry no flame along with it. Afterwards light it only from below; no flame will be communicated upwards. Exp. 3. Place the wire gauze over a gas pipe, and allow the gas to pass through it. If lighted above, the wire may be gradually raised, carrying the flame with it; but there will be no flame below. Reversing the experiment and lighting the gas as it comes from the pipe, and placing the wire over it, the flame will not appear above, until the light is applied to the top. Exp. 4. The same experiments may be made with a candle, in the absence of gas.

Accidents in mines are not attributable wholly to the explosion. The carbon of the gas during combustion, i.e., its union with oxygen, becomes carbonic acid gas (CO_2). To the immediate formation of this noxious gas called *after-damp*, or *choke-damp*, perhaps most of the fatal consequences of an explosion must be referred.

Notes of Lessons.

FALL OF MAN,—GENESIS III.

I. Introduction.

Explain "Subtlety of Serpent" eyes opened, i.e., of understanding.

II. Lesson.

1. Eve *listens* to the serpent, who questions the kindness of God in not permitting them to eat of every tree: here is the *beginning* of her sin—she *doubts* God's word.

2. Eve *parleys* with the serpent.

He *denies* God's words. Eve believes him. Here you see the *progress* of sin. Eve disbelieves God.

3. The serpent suggests doubts of God's goodness, and excites Eve's ambition, until the sin is *completed.* She eats.

4. Eve follows the example of the serpent and tempts Adam. Sin makes us like the devil. "Ye are of your father the devil; for the works of your father ye do."

5. Adam and Eve try to hide from God! Sin *blinds* the mind.

6. Adam and Eve expelled—the curse on the ground — death; Sin brings *punishment.*

III. Application.

Are you afraid of sin?

S. T. L.

TEA POT.

I. *Introduction.*

Exhibit different Tea-pots, they are of different materials, this you call metal, and these earthenware. And these of earthenware are of different *colours.*

II. *Lesson.*

1. We wish to discover in which of these we could make the best tea. What do *you* say? Metal. And you? Earthenware. Well, we shall see. When the tea is made what sort of water is used? Hot, boiling. Which would you rather have, tea made of hot or of boiling water? Boiling water, sir. Why? Because the tea is stronger. Then the hotter the water the better the tea.

2. Suppose that boiling water is poured on some tea and you take a cup of it and when that is drunk you take another which of the two is best? The last, sir. Why? It has stood longer; then the longer it stands the better the tea? Yes sir. Then if you let it go cold and drink it tomorrow it will be better than to day? No, sir, the water must be kept hot.

3. Now if you had two tea-pots one of which kept the water hotter than the other, which of them would make the best tea? That which kept the heat the longest.

What do you call that which parts with heat readily? A good radiator. Which is the best radiator, metal or earthenware? If you touch a metal tea-pot after pouring boiling water in what does it do? Burn. Yes, it is very hot. Which would feel the hottest, metal or earthenware? Metal. Well then the metal keeps the heat better than the earthenware. Suppose then we had a metal and an earthenware tea-pot each holding a pint, if you filled these with boiling water at the same time, which would allow the water to cool first? The earthenware. Now tell me in which could you make the best tea? The metal because it keeps or *retains* the heat the longest.

4. But some old women prefer a black earthenware one. Here draw out that black allows heat to escape more than any other colour, then a black tea-pot is the worst for making tea. Now lead them to infer that that which readily parts with heat, as readily absorbs it. Now when the old woman *wets* her tea she puts it on the *hob*, or by the side of the fire, so that she *keeps the water hot.*

5. Look at the Spout. It is higher than the top of the tea-pot, how is that? Suppose it only stood half as high? The water would run out, the water stands as high in the spout as in the tea-pot. Give other instances of this property of fluids.

6. Why is this hole in the lid? (Some will say to let out the steam—take notice of this answer.) You remember our lesson on air. When the bladder was placed over the receiver, and the air exhausted what occurred? It burst in, sir. Well what was the

cause of that? The pressure of the air. Certainly, air you know has a pressure of 15dlbs. to the square inch. Well, suppose there was no hole in the lid, what then? Oh! sir, the pressure of the air would prevent the tea from running out of the spout. (Try this by stopping the hole. Give other instances.) Well, then, the air presses through this small hole, and spreads over the top of the tea, with an equal pressure. So that in the tea-pot there are both the weight of the water and the pressure of the air, and these overcome the pressure in the spout.

ON THE BUTTERFLY.

Now that the summer is come, we will have a lesson upon some little creatures which no doubt we shall sometimes see. They are often beautifully coloured, but are not birds, although they fly about merrily. We call them "butterflies," which is the old Anglo-Saxon name, perhaps because we chiefly see them at the time of year when we have most butter. Before the autumn, these butterflies will lay some very little eggs upon the leaves and stems of plants, sometimes only one or two, and sometimes a great number of eggs together. These eggs, unlike those of birds, have not any shell, but the butterfly covers them with a kind of varnish which fastens them to the plant, and prevents the rain washing them away. The eggs sometimes remain upon the plant from autumn until spring, and become little caterpillars. The butterfly always lays her eggs upon a plant which will be fit food for the caterpillars, which immediately begin eating. We call a person who provides food, a caterer, from an old word, "cates," provisions, and sometimes we speak of "pillage," which is derived from a French verb, "to rob;" in the same way "a caterpillar," means a "food-robber," and so the gardener often finds it. A caterpillar just hatched will not weigh the hundredth part of a grain, but before it is a month old will have eaten leaves weighing an ounce, sometimes eating twice its own weight in twenty-four hours. The caterpillar, smooth or hairy, generally has sixteen legs, the first pair being something like claws, and as it grows older finds its skin becoming too small, so that at last it contrives to split it open, and crawls out with a new skin which had been growing underneath the old one this it does two or three times during its life. At last it spins a little silken thread, which it fastens in some safe place, and hanging by it, slips off its skin once more, and comes out in quite a different shape, called a "chrysalis," a soft, short, little robe, rather larger and broader at one end than at the other. This daily becomes harder and more dry on the outside, until quite a husk, or shell is formed, when it can neither eat, drink, see, nor move. This outer case is sometimes marked with yellow spots or stripes which has occasioned its being called a chrysalis, from a Greek word, meaning "golden." After one, or sometimes six months, the butterfly, which has grown inside, splits open the case and comes out perfectly formed; having been first an egg, then a caterpillar, next a chrysalis, and lastly a butterfly.

Each wing appears covered with a fine dust, which really is more than a hundred thousand little scales fastened to the gauze-like wing, and giving it a beautiful pattern and colour. The butterfly sips the honey out of the flowers, with a kind of trunk, for it drinks only, and does not eat, and flies from flower to flower with a jerking flight of quick turns, by which it perhaps escapes the birds better, yet it seldom lives beyond the summer in which it left the chrysalis. A very plain caterpillar and a withered looking chrysalis often produced the most beautiful butterfly, so that we must learn not to judge hastily by appearances. Above all we must see the wondrous wisdom which has ordered all these changes in the life of an insect, enabling the butterfly which never eats, to choose a fit plant to nourish the little hungry caterpillar, teaching the caterpillar to hide itself safely, before it becomes a helpless chrysalis, and prompting the butterfly, when its prison is broken, to spread its wings to the sun and glance merrily away to the flowers, as if it had flown all its life before, and never been a heavy, slowly crawling caterpillar. It is indeed a wonderful change, and may remind us that the Bible says of ourselves, that "we shall all be changed" and that "it doth not yet appear what we shall be."

W.

THE BARREN FIG TREE.

St. Luke XIII., 69.—*For Criticism.*

I. Introduction.

Explain nature of Fig-tree, and why planted in a vineyard—favoured. Duties of vine-dresser. Cumbereth, i.e., maketh sterile, takes up all the juices of the ground.

II. Lesson.

1. A *man* had a vineyard;—represents *God.* [Compare Isaiah, chap. v. i. 7.]

2. The *Figtree*;—a chosen one, favoured, carefully tended by *dresser*:—The *Jewish People*,—chosen, favoured and carefully tended by *God.*

3. *Owner* seeks fruit from tree;—*God* desires they should produce good works.

4. The *barrenness* of the tree;—the wickedness of the people.

5. The dresser of the vineyard pleads for the tree:—*Jesus Christ* and his messengers pleaded with God to spare His people.

6. The *Owner* waits to try it once more; *God* waited to give His people one more opportunity to repent.

III. Application.

1. We are favoured fig-trees, carefully tended by God.

2. Many of us are *barren*,—have neglected the means of grace given to us—produce only evil fruit.

3. *Jesus Christ* and His ministers are our *dressers* who plead for us.

4. God is long suffering and gives us time for repentance.

5. Many of us despise God's warning, and cumber the ground.

Remarks on last Notes.

The result of plain didactic teaching—perhaps its necessary result—is that people seeing, see, but do not perceive, that is, the understanding assents to the truth, but the heart does not feel it, nor the conscience apply it. This fact led our Saviour, who spoke as never man spake, and who knew what was necessary for man, to teach by parables; that by means of a metaphor, or an allegory, he might excite interest in the truth, and might awaken the mind to study and practise it.

From forgetfulness of this simple purpose of the parable, have arisen nearly all those faults for which the exposition of this class of subjects is usually remarkable. Because some parables appear designed to conceal rather than to reveal the truth, it has been thought that such was the design of all; hence there has been a laboured attempt to make clear what was never obscure, and to give a spiritual meaning where one was never intended. In our opinion the parable is a simple story, revealing, to ordinary thoughtfulness, an important truth. The story frequently contains terms, allusions or circumstances, which are necessary to its *completeness*, but not at all essential to its truth.

It is important, then, before forming a lesson on a parable, to separate that which is essential from that which is not. To do this, its literal meaning must be ascertained, without any reference to the spiritual truth which it embodies. This done, the parable should be studied in the light of the circumstances out of which it grew, or any others with which it is associated, until the *subject of instruction* intended, is clearly revealed to the mental vision. Each parable has its own proper subject, one which illustrates a great principle relating either to the divine government or to human duty. The parable of the "Two debtors" for instance, teaches the duty of forgiveness; that of the "Pharisee and Publican" the way of acceptable worship; that of the "Unjust Judge," the value of importunate and persevering prayer.

Previous to writing the Notes—repeating what we have formerly urged—after the subject is thoroughly understood, a complete analysis of the parable and its circumstances should be made, and any information from the Scriptures or elsewhere, which will throw light upon it, collected, and arranged as Notes of Information.

The "Notes of Lesson" would not differ in *form* from Narrative Notes, though there would be some difference in detail.

The first part, the *Introduction*, should contain the analysis of the parable, with such illustrations of its terms and allusions as would bring out clearly, the *literal meaning* of the parable.

The second division, the *Lesson* should contain the Subject of Instruction, simplified, gradually developed, and arranged in that form, which has been found to be best adapted to instruct the mind, affect the heart and awaken the conscience. Here the Notes if "Full" would indicate the methods of exposition which the teacher intended to pursue; and would exhibit to some extent his power of graphic description; they would also show his ability to form good questions; and from them we could infer whether he was accustomed to draw his illustrations from sources with which children are familiar.

The Application should show how it is intended to bring the whole matter to bear on the conscience.

The faults into which the writer of the Notes on the Barren Fig Tree has fallen, have arisen from the supposition that parables require exactly the same treatment as Narratives.

The Introduction contains explanations of terms and allusions, with which of course we do not find fault, but they ought to have been interwoven with the analysis, in such a manner as would have brought out the literal meaning of the parable.

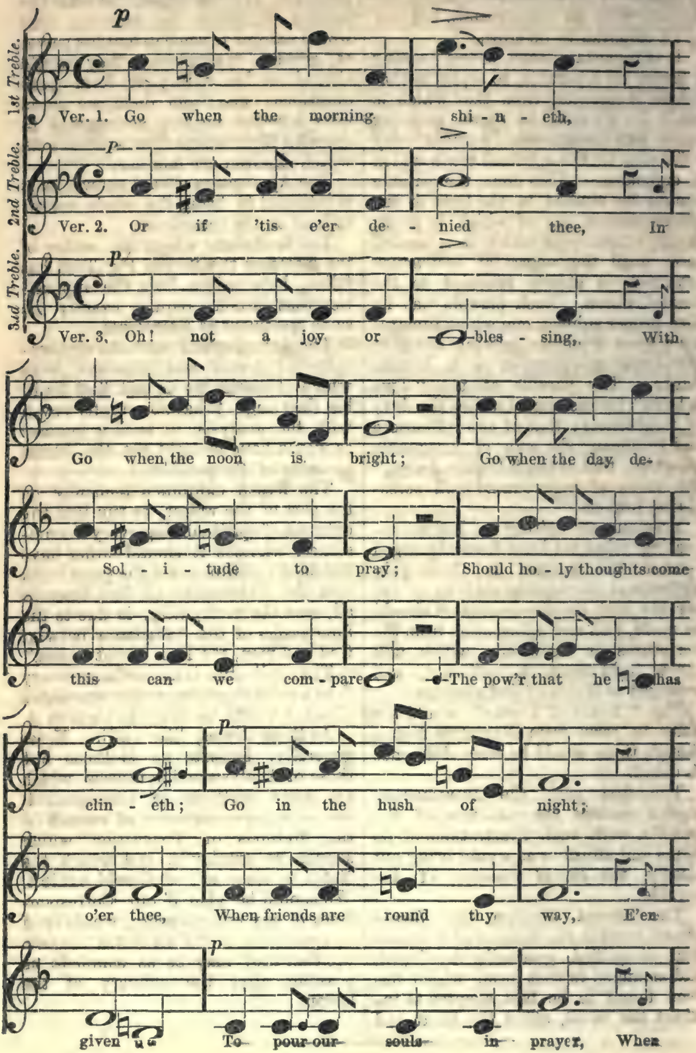
The lesson exhibits a tendency on the part of the writer, to run into the extreme of spiritualizing every circumstance, whereas it should rather have unfolded and illustrated the great truth that the forbearance of God towards all, *even the most guilty*, is due to the *intercession* of the "Mediator betwixt God and men, the Man Christ Jesus."

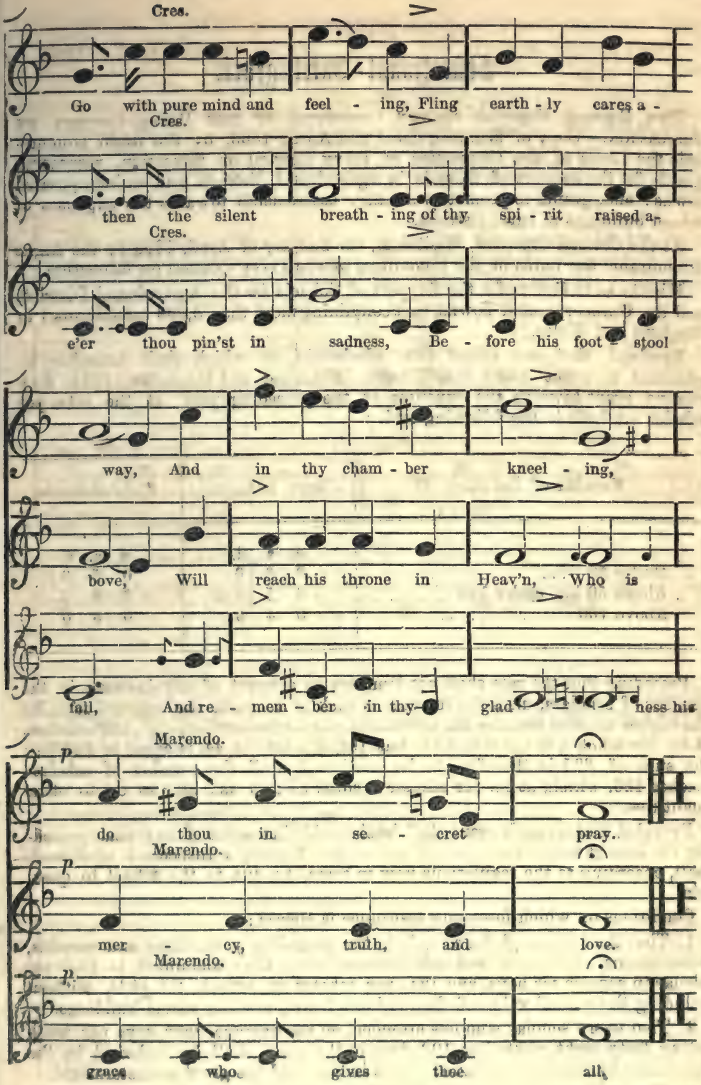
The application is more of a summary than a pointed putting to the conscience of what would be likely to awaken it.

As these Notes, like outline Notes generally, indicate no Methods but those of Analysis and Synthesis, which are mere methods of arrangement, we have no opportunity of remark on the Methods of Exposition which should be employed, and which the Notes to some extent should exhibit. We should be glad if our Correspondent, or any other teacher, would send us specimens of "Full Notes" drawn up, that they may be as complete as possible, after the delivery of the lesson.

Prayer.

Poetry by Lord Morpeth. *Composed by C. J. Cross.*


1st Treble.
2nd Treble.
3rd Treble.
p
Ver. 1. Go when the morning shi - n - eth,
Ver. 2. Or if 'tis e'er de - nied thee, In
Ver. 3. Oh! not a joy or bles - sing, With
Go when the noon is bright; Go when the day de-
Sol - i - tude to pray; Should ho - ly thoughts come
this can we com - pare The pow'r that he has
clin - eth; Go in the hush of night;
o'er thee, When friends are round thy way, E'en
given us To pour our souls in prayer, When


Cres.
Go with pure mind and feel - ing, Fling earth - ly cares a -
Cres.
then the silent breath - ing of thy spi - rit raised a-
Cres.
e'er thou pin'st in sadness, Be - fore his foot - stool
way, And in thy cham - ber kneel - ing,
bove, Will reach his throne in Heav'n, Who is
fall, And re - mem - ber in thy glad - ness his
Marendo.
p
do thou in se - cret pray.
Marendo.
p
mer - cy, truth, and love.
Marendo.
p
grace who gives thee all.

Educational Intelligence.

THE RECENT MINUTES OF THE COMMITTEE OF THE PRIVY COUNCIL ON EDUCATION.—Copy of Minutes, dated 2nd April, 1853, by the Right Honourable the Lords of the Committee of Privy Council on Education, respecting grants for the support of Schools in agricultural districts and unincorporated towns; and, grants to promote voluntary assessments towards the expenses of school buildings in rural districts.

At the Council Chamber, Whitehall, the 2nd day of April, 1853 by the Right Honourable the Lords of the Committee of the Privy Council on Education.

Minute as to Grants for the Support of Schools in the Agricultural Districts and the Unincorporated Towns, (not containing more than 5,000 inhabitants,) in England and Wales.

Resolved, that any school now admissible, or which shall hereafter be admitted to grant under the Minutes of August and December, 1846, may receive grant towards the expenses of the preceding year, at the rate per scholar set forth in the following table:

Number of Scholars.	Boys' Schools.	Girls' Schools.
	£ s. d.	£ s. d.
Under 50	0 6 0	0 5 0
Above 50 but under 100......	0 5 0	0 4 0
Above 100	0 4 0	0 3 0

Providing that the rate shall not diminish on account of any increase in the number of scholars, until the increase is such as to make the reduced rate for the higher number balance the unreduced rate for the smaller, *e. g.*, 100 scholars, at 5s. per scholar, is equal to £25, but 101 scholars at 4s. is equal to £20 4s.; the sum of £25 is therefore to be continued until the number of scholars reaches 126, which, at 4s. per scholar is equal to £25 4s., and so on to other quantities.

Provided that no such grant shall be claimable in respect of any year preceding the date at which the visit of one of her Majesty's Inspectors of Schools shall, according to the regulations now in force, be due to the school in question.

Conditions on which foregoing assistance is offered:—

1. That the income of the school, in the preceding year, from endowments, subscriptions, collections, and school-pence, shall have amounted to 14s. per scholar in schools for boys, and 12s. per scholar in schools for girls, without including the annual value of the teacher's house, or other school-buildings.

2. That every scholar who has attended, on the average, four days per week during forty-eight weeks, or 192 days in the year, shall be reckoned in the attendance by which the amount of the income and the grant are determined.

3. That 1d. per week, at least, shall be paid for the education of every scholar by his or her parents, guardians or friends, and that in no case in which

the attendance or school-pence of any scholar is reckoned shall the charge exceed 4d. per week.

4. That the school shall be kept by a master or mistress holding a certificate of merit under the Minutes of 1846, and that at least seven-tenths of the whole income, including the grant, shall be applied to the salary of the teacher and assistant teacher. That in schools containing more than 120 children, the managers shall avail themselves of the Minutes of this Committee to provide from the seven-tenths of the school income such pupil-teachers, exceeding the rate of one for every forty scholars, or such assistant teachers as the Committee may require.

5. That the grant applied in aid of the stipend of the master or mistress may be accepted by the Committee in lieu of the voluntary contributions required in fulfilment of the pecuniary conditions of the grants in augmentation of teachers' salaries, under the Minute of August ann December, 1846.

Subordinate Regulations.

6. That the children employed in factories and printworks, who attend school under any statute, shall be counted as scholars in ascertaining the average attendance, if they fulfil the provisions of the Act, and the school-pence paid on their behalf shall be reckoned in the income of the school.

7. That such forms of account of the income and expenditure, and such registers of school attendance, and of the payment of school fees, be kept as this Committee may direct, in a separate minute of details.

8. That three-fourths of the scholars above seven and under nine years of age; three-fourths of those above nine and under eleven; and three-fourths of those above eleven and under thirteen respectively, pass such an examination before her Majesty's Inspector or Assistant Inspector, as shall be set forth in a separate minute of details.

Their lordships further resolved, Than when any school in the immediately preceding year should have received the sum of £64 or upward from any rate to be assessed in pursuance of the Bill for that purpose submitted to Parliament on the 4th of April, 1853, their lordships would sanction the apprenticeship of pupil teachers in every such school, under the minutes of August and December, 1846, at the rate of one pupil teacher to every 25 scholars.

At the Council Chamber, Whitehall, the 2nd day of April, 1853. By the the Right Honourable the Lords of the Committee of the Privy Cocncil on Education.

Minute as to Grants to promote Voluntary Assessments towards the Expenses of School Buildings in Rural Districts.

Their lordships having had under their consideration the difficulty of raising funds for the building of schools, and importance of promoting an equitable assesment of the owners and occupiers of property in any parishes for this purposes;

Resolved, That whenever the owners and occupiers of property in any parish, not having sufficient accommodation in schools under inspection, and not forming part of an incorporated town. nor containing more than 5,000 inhabitants, shall raise a sum equal to one-half of the estimated outlay for the erection and fitting up of suitable premises, this Committee, on being satisfied of the urgency of the case, will grant one-half of the same outlay, provided that no such grant shall exceed the rate of 6s. for every square foot of area in the school and class-room, if the plans include a teacher's residence, or 4s. if they do not include such a residence.

Provided also, that the site, plans, estimates, specifications, and trust-deed, be satisfactory to the Committee.

ST. MARYLEBONE CHRISTCHURCH NATIONAL AND INFANT SCHOOLS.—The interesting ceremony of opening these schools, which are situate in Stafford-street, Lisson grove, took place yesterday.

Lord Portman took the chair, and was accompanied by the Rector, the Rev. Robert Walpole; the Lord Bishop of London, the Earl Manvers, Edward Wyndham, Esq., (the magistrate), the Rev George Fisk, &c.

The great room was crowded in all parts; chiefly by ladies.

The school-rooms intended to provide accommodation for the instruction of upwards of 700 children of the poor of this district, are now complete in all their departments, The freehold site on which the building is raised, was purchased at the cost of nearly £3000, by contributions from the parishioners, and other friends of the religious education of the poor; but for the erection of the building itself, the district is indebted solely to the Christian munificence of a lady, a member of the congregation of Christchurch (Miss Lewis. of Kent terrace).

No structure of a similar class, on a scale so extensive, and owing its origin to the benevolence of an individual, can be found in the whole metropolis.

The chair having been taken, the proceedings were conducted in the following order:—The 127th Psalm was chanted; after which the collect was said, "Prevent us O Lord," followed by a prayer for the occasion, concluding with the Lord's Prayer; the 100th Psalm was then sung, and the Blessing was uttered by the Bishop of London.

The Rector then requested Lord Portman to declsre the schools opened.

The noble chairman then addressed the meeting, and in the course of his remarks dwelt forcibly on the progress made in the cause of the education of the people, and expressed the satisfaction he felt at being called upon to preside on this occasion. The noble lord passed a high and well-merited eulogium on the beneficent and Christian lady who at her own cost had erected this splendid building.

The Rev. Robert Walpole, the rector, in a very powerful appeal, moved the first resolution. "That this meeting held in this noble and spacious edifice, erected by Miss Lewis, for the Christchurch National and Infant Schools, desire to express the deep sense they entertain of her pious beneficence, and gratefully to acknowledge the lasting obligations of the district for her munificience in providing an edifice for furthering the education of the children of the poor in the principles of the Established Church."

Sir James Hamilton, Bart, seconded the resolution in glowing terms, paying his tribute of respect to the Christian lady who had carried out the noble work.

Carried with acclamation.

Robert E, Broughton, Esq., moved the next resolution, to the effect that it was incumbent on the parishes and inhabitants of this district to provide more liberally for the support of the schools by more numerous annual subscriptions, and by the foundation of an endowment fund. The learned gentleman dwelt at considerable length on the subject of the state of crime in the country, contending that, looking to the increase of population, there was no increase of crime, and showing the blessed effects of education on even those who had been transported. The tendency of education, nay, its direct effect, was to improve the Christian feeling of the country. He concluded by warmly panegyrising the Christian lady who had so nobly and so unostentatiously completed this glorious work.

The Rev. George Fisk seconded the resolution in one of those eloquent addresses with which he graces every subject he descants upon. He showed that while the Roman Catholic body were unceasing in their efforts to proselytise and to make their way uuder all phases. yet there was much to rejoice at in the progress which was making in the cause of religious education, however appalling the present amount of infidelity and crime might be.

This resolutoin was carried unanimously.

The Rev, Charles Baring and the Bishop of London severally addressed a few remarks to the meeting, and thanks having been voted to the chairman, his lordship replied to the compliment paid him.

" God save the Queen," by the choir, assisted by the children of the National Schools, was sung and the ceremonial concluded.

NOTICES OF BOOKS.

An Atlas of Scripture Geography.—Wm. M'Leod—Longman.—This Atlas consists of three sections; a summary of Scripture Geography, maps and plans, and index of places. The summary is a very good analytical arrangement of the principal facts connected with Sacred Geography. The mechanical arrangement is particularly good, with the names in italics and marginal headings, thus affording to the memory all the aid which can be given by throwing up distinctly and prominently the main points. The Maps and plans are got up as beautifully in finish, as they are careful in detail. Those on Palestine are progressive; and the whole much better fitted for usefulness, than would have been, had they been crammed with names, and yet as many are given as are really necessary. The Index is full; and with the names, are given the latitude and longitude : We think however, it would have been more useful, had the names been accented. Mr. M'Leod has done good service in producing this Atlas of Scripture Geography, characterized as it is by so much accuracy and elegance ; and we earnestly hope it will meet with a patronage as extensive, as its excellencies are numerous.

The Churchman's Magazine.—Whitaker.—This is a new serial to supply what was thought to be 'the want of the day.' We confess we have no strong predilections for class publications, especially on matters of religion, on account of their possibly tending to perpetuate feelings of exclusiveness, and just now there seem special reasons for Christians, particularly those belonging to the Reformed Churches, holding the faith in unity of spirit, and in the bond of peace. With these views we are gratified to observe in the introductory article of the Churchman's Magazine, the proposal to avoid controversy, "reminding people rather of the much in the which they agree, than of the little in which they differ." If this intention is carried out, and due prominence given, as is proposed, to the great doctrines of the Reformation, and the practical duties of Christianity, as distinguished from its mere ceremonials, the influence of this magazine will be beneficial.

Home Thoughts.—Kent and Co.—Another attempt to establish a 'Monthly Magazine of Literature, Science, and Domestic Economy, especially adapted to the use of Families.' We attach great importance to this department of literature, humble it may be, but nevertheless one of immeasurable influence just now. The masses are rapidly obtaining the power to read, a power in many cases ill-directed; there is moreover a taste for reading, but an uncultivated one, and hence there is perhaps no greater want at the present period, than that of cheap serials; entertaining, without pandering to evil passions, and instructive without being prosy. The literature of the working man can never be that which befits those with learned leisure, but must be a special creation—a class *sui generis*, characterized by brevity, point, and general attractiveness, and in which the didactic is never tedious, nor too highly condensed. The 'Home Thoughts' contain some articles that are good, and some to which we should object. We should be disposed for instance to take exception to some of the recreations of Mr. Theodore Tremor, believing it quite possible to write a good and humorous tale, without making the hero drink bottle after bottle, and then sally forth half intoxicated to lose twenty florins at the *rouge et noir* table. This is to us one of the objectionable things in too much of our cheap literature. The hero or heroine is made to do and say, what is highly offensive to good morals, and refined tastes, and this not to show the results of ill-doing, but simply to cause a laugh, or point a joke. There can be no good reason shown for this mode of construction, but many against it; we therefore caution teachers against putting into the hands of children any book in which drunkenness, or gambling, or any other sin is treated of in such a way, as to make its commission appear a mere trifle, instead of a grave offence against God.

Pitcairn's Island.—Commander M. Burrows, R.N.—Whitaker.—The story of the mutineers of the Bounty will always interest, and should always instruct. Capt. Burrows has dwelt briefly on the story, that he might have the more space for the sequel. This part he has done very satisfactorily, tracing the history of the Pitcairn Colony, and its connections, down to the recent ordination of the Rev. G. Nobb, as the chaplain of the settlement. Not only may young people be profited by this narrative, but teachers as well. There are many points connected with Capt. Bligh and the mutiny, which should be monitory to all concerned in the administration of discipline.

My First Book to Teach me Reading and Writing.—W. M'Leod—(Gleig's Series).—Longman.—The object of this little book is to teach reading and writing simultaneously to adults. It is so constructed that the lesson for reading is on one page, whilst the lesson for writing is on the opposite page, that for writing consisting of the same words as that for reading, but in the script instead of the ordinary Roman character. It would appear from this publication that Mr. M'Leod is losing confidence in Mulhauser's synthetic method of teaching to write, for here after but one lesson of an introductory character, the pupil is introduced to letters and words involving all the mysteries of link, loop, and curve, besides hooks, right lines, and crotchets. We are not convinced of the correctness of the principle involved in the construction of the 'First Book.' No doubt children may and should be early taught to write, but we very much doubt whether anything is gained by pressing a double set of symbols on the attention at the same time, and this doubt we hold in reference to adults as well as children. The compiler himself does not feel very positive about the success of his experiment, and therefore offers thankfully to receive particulars as to its working, or suggestions as to its improvement. We feel pleased at this offer, and hope that those who make trial of the plan, will give Mr. M'Leod the result of their experience.

Simple Truths in Easy Lessons.—(Gleig's Series.)—Longman.—Few persons are fully aware of the great difficulty in writing a good book for young children, so that whilst many make the attempt, but few succeed. The one before us is not a successful effort, for the attempt at simplicity has led to serious faults. In a first book for little children, words should be used in their first intention, and not in their figurative meaning, except in very rare instances. In this book, however, we read of Cain's taking *root* with his children; and of Noah's descendants it is said 'They were *weak* too, for they thought to build a tower whose top should reach to heaven.' , Again in seeking for simplicity, accuracy should not be sacrificed for the sake of a syllable; but in reference to the Passover it is said, that the posts and lintels were *stained* with blood. Now no one would maintain that the words *sprinkled* and *stained* convey the same idea; moreover nothing is gained by this substitution, for sprinkling is more familiar to children than staining. The facts in this book are not always accurately given as in this sentence, Pharoah gave an order that the male children, "as soon as they were born, should be cast into the Nile, and this cruel order the midwives did their best to defeat. But the order was a charge to all the people, and given subsequently to that which concerned the Midwives. This fact even when correctly given is rather a curious one to find in 'Simple Truths'; we could imagine it rather a difficult one for little children. Such also is this sentence. "Jacob took to wife both the daughters of Laban, and by-and-bye their two maids; for in those days men were not *forbid* to wed more wives than one." We cannot but think this mode of constructing books for little children, decidedly a wrong one. Better far to present some of the simple and affecting stories of Holy Writ in all their fulness, than to attempt a dry, because meagre, outline of facts—a mere skeletonized narative. Experience declares which of these two modes is the more effective.

Correspondence.

We have been favoured by the kindness of a Schoolmaster, who subscribes himself "Economist" (in connexion with certain hints he has addressed to ourselves upon the subject of loss of space in our own Periodical) with a prospectus of another projected Educational Periodical. The motive which influenced the originators of the "Papers for the Schoolmaster" not being one of gain, but of desire to advance the professional interests of the English Schoolmaster, they cannot but rejoice if the time has already come when the mission of such a Periodical has been completed. Nevertheless they cannot but express their surprise at the following expression which ignores their labors by a sweeping declaration. "There is no Educational serial which is specially adapted to the peculiar wants of Teachers of Church Day Schools. The few Educational periodicals now published, are chiefly devoted to the promotion of the objects and interests of the societies which issue them." The projectors of the "Papers for the Schoolmaster" with no spirit of boasting reply that 4,000 of their Periodical (and this number is growing insufficient) are printed every month, and find, ere long, a circulation either in the form of numbers or volumes *among all classes of Schoolmasters.* In the list of topics which the new Periodical undertakes, there is not one which is excluded from these "Papers," with the single exception of a noevl department, *"a gossip about Teachers and Schools."*

In reply to an enquiry of "Economist," we beg to state that many of the Notes of Lessons, and sometimes other articles, inserted in this Periodical, are the composition of Schoolmasters sent to the editor.

Sir,—Permit me to address a few lines to your correspondent, T. C., who is dissatisfied with the arduous duty of looking after his scholars in church. I wish to do so with that kindness of feeling which should invariably characterize the manner of teachers in their correspondence with each other.

If Schoolmasters were to look at the duties of their calling in an unfavourable aspect, few would remain in the profession above a year or two. The amount of necessary and unpaid labor, the never-ending anxiety, the constant self-denial to be exercised, and, too frequently, the ingratitude they receive from parents, are enough to drive intelligent teachers from the forty or fifty, or even sixty pounds a-year, to a clerkship, with *twice or thrice the salary*, and one-tenth of the responsibility.

Allow me to remind your correspondent that *his duties* can only be performed *by himself.* No other could do them nearly so well.

Where would a Teacher be but with his children? where can a father find happiness, but with his little ones on his knee, listening to their artless tales, and enjoying their innocent jokes? And a Schoolmaster is the father of another family—larger, and full of interest—to which he supplies, not food, or lodging, but mental and intellectual culture,—moral and parental trainlng,—pastoral counsel and warning. Let your correspondent neglect even a part of this duty—let him give up his Sabbath teaching, or his Saturday visiting of parents, or his holiday-rambles with his pupil-teachers, or his *example* of devout attention at church, to those whose fathers' and mothers' are taking their *sinful ease*, and he will lack a recompense of far more value than a mere monetary one. Besides the conscienciousness of manfully discharging a heavy duty will smooth his pillow, when anxious cares disturb his repose. Let him *habitually* learn to look on the sunny side.

J. B. R.

Sir,—I am a reader of the "Papers for the Schoolmaster," and having derived much pleasure and instruction from them, it has occurred to me, that the circulation of the same might be greatly increased and their usefulness also, if one page at least were devoted to Sunday School Teachers. We feel that we need instruction, and that a few words *expressly* intended for us would come more home than those addressed to others. If such questions as these were asked and answered, how might a Sunday School Teacher, deeply anxious for the spiritual welfare of her class, yet feeling herself an *incompetent* teacher, render herself more competent? What is the best style of lessons for Sunday School classes? What mode of teaching and explaining the Collects and Gospels should be adopted? aud supposing the Collect and Gospel to be taught in the morning, what would be the most useful lesson in the afternoon?

We have not the advantage of being trained as teachers, and we feel that much of the benefit of our lessons is thrown away, by our not having an efficient method of imparting instruction, and maintaining discipline in our classes. You will be perfectly acquainted with the discouragement of a teacher,—young and inexperienced, yet very anxious to become more useful, and, though there are so many books published for Sunday Schools, none seem exactly to meet our wants.

Hoping most earnestly that you may be prevailed on to help us.

A SUNDAY SCHOOL TEACHER.

[Although we do not directly address the class referred to, we do, nevertheless furnish matter full of interest and profit, as well for Sunday as Day Schools. And there is the less need for our entering more fully on this department of school work, as there are, already serials, whose sole business is with Sunday Schools, and which, moreover, are very ably conducted.]

Sir,—A correspondent asks for a plan, backed by experience, for ensuring a regular attendance of the children at the precise time. If I may be allowed, without entailing a charge of egotism, I will describe my plan, which has been eminently successful, in a historical manner.

I opened this school two years ago, with about 60 boys on the books; about 14 or 15 were present at prayers the first morning, and about 20 or 25 dropped in between half-past nine and half-past ten; and having been picking cinders from heaps thrown out of the salt houses, and not having washed themselves, they were in a filthy condition, and copy-books and reading books appeared very much as if they had been used as towels. I was in utter amazement, and appealed to the Incumbent for an explanation, he said it was always so, and there was no help for it. The afternoon following I spoke to the children upon the subject. This had some little effect, but I could not in the first week collect all my pupils before a quarter to ten. I spoke to a neighbouring teacher, who had nearly 100 children. but he said that he could never get more than 40 at 9 o'clock; he caned them and coaxed them, and sometimes even related a pretty tale to those who were present in time, but this was only a cure *pro tem*, and soon ceased to be efficacious; and I was comforted with the assurance that my predecessor sometimes did not begin School till half-past nine o'clock, as the children did not come.

The next Monday morning I stood in the lobby with a stick, and administered *one* stroke on the fingers to every boy whom I found there when I opened the door, which I did at half-past nine, and, whatever excuse might be made, I *never* remitted the punishment, and my boys remarked that my law was like that of the Medes and Persians, which altered not; they called it King Darius's law, which name it retains to this day. In two months the evil ceased to exist, and with an average of 60 boys in attendance, we seldom have three boys after prayers, that is ten minutes past nine. We have our clock five minutes behind the church, and to the exact minute that our clock indicates nine, we proceed to prayers. Most of our children arrive at half-past eight, some at eight. I get into the play-ground at 20 minutes to nine, and commence some game with them. A late boy in the afternoon is a rarity.

The secret of success lies in *punctuality to the instant* and in the certainty of punishment, although so small, and the further inducement of having a game with master, brings the children as early to school as they can manage to get there.

T. C.

SIR,—In answer to an "Enquirer," who asks for an "effective plan for securing an early and regular attendance of children at the opening of school," I would suggest the following simple method, which I have adopted for upwards of thirteen years, and invariably found successful.

To commence ringing the bell a few minutes before the appointed time for school, and to leave off ringing just in time to allow the children (who have been walking round the play-ground, in order, during the ringing of the bell) to get into the school and be in their seats as the clock strikes the appointed hour. To be equally as punctual in allowing the children to depart when the school is over. If, however, some should even then be late, invariably keep such "late comers" a short time after school hours, giving them something to write on their slates, such as the word "*Late*," 100 or 200 times, &c. at discretion, never accepting any excuse they may bring, unless accompanied by a note from the parent.

Rigidly observe this plan and you will very soon have no "late comers." Its success I account for in the following manner:—

The children learn a great moral lesson by the invariable punctuality of the teacher, and this coupled with his evident desire and careful precision in allowing those who thus came to school to the minute in like manner to depart at the minute, together with the knowledge which the children possess, that there is no possibiliiy of escape from being "kept in" if they are "late," so influences the children that they shrink from being late as much as they would from some greater fault, though, as it regards the discipline of a school the want of punctuality may be looked upon as one of *the greatest faults*.

J. J.

SIR,—Mr. Dawes, now the Dean of Hereford, attached a good deal of importance to the formation of habits of personal cleanliness. I fear that some teachers have attached too little, and therefore feel rather anxious to learn from those of your correspondents, who have paid particular attention to this matter, what plans they have found to answer best; and whether they have good reason to believe, that what was at school a thing of discipline, became in after-life a well-formed habit.

A MASTER.

Questions for Pupil Teachers.

(END OF FOURTH YEAR.)

1. Write an account of the organization of the school; something more minutely of your own class; and state how you would give a lesson upon a River in the same county.

2. Add 4 fourths of $33\frac{1}{6}$ to 12 thirds of $27\frac{3}{16}$.

3. How many 40ths of a cwt. must be added to 40 cwt. to make 41 cwt.

4. Substract $\frac{7}{16}$ of 7s. 6d. from $\frac{3}{8}$.

5. What sum will 15 men working 9 hours a day earn in 16 days, if 8 men working 7 hours a day earn £22 15s. in 20 days?

6. What is the amount of £426 for $3\frac{3}{4}$ years at $3\frac{1}{2}$ per cent?

7. Convert the following into simple prose and parse the words in italics.

"Now *came still* evening on, and twilight grey
Had in her sober livery all things *clad*.
Silence accompanied; for beast and bird—
They to their grassy couch; *these* to their nest
Were slunk, all but the wakeful nightingale,
She her amorous descant all night *sang*."

8. Explain the use of an auxiliary verb, with three or four examples.

9. Write all the words that occur to you, ending in-logy, and give their meanings.

10. Give the metre of the four following examples, and state with whose poems they agree.

"Ye nymphs of Solyma begin the song."
"The stag at eve had drunk his fill."
"I am monarch of all I survey."
"Turn gentle hermit of the dale
And guide my lonely way."

11. Draw a map of Hindostan with mountains, rivers, and towns upon them. Enumerate the British Possessions in Africa and America. What are our principal exports?

12. In a cruet stand containing sugar, vinegar, catsup, anchovy, mustard, pepper, and salt; trace each to its probable place of production. In what countries are the following animals found:—The Ouran Outang, Armadillo, Walrus, Alligator, and Hippopotamus?

EXTRACTS.

Diffusion of Knowledge.—The strong barriers which confined the stores of wisdom have been thrown down, and a flood overspreads the earth; old establishments are adapting themselves the spirit of the age; new establishments are rising; the inferior schools are introducing new systems of instruction, and good books are rendering every man's fire-side a school. From all these causes are growing up an enlightened public opinion, which quickens and directs the progress of every art and science, and through the medium of the press, altough overlooked by many, is now rapidly becoming the governing influence in all the affairs of man.—*Dr. Arnott.*

Duty of Parents.—The last duty of parents to their children is that of giving them an education suitable to their station in life; a duty pointed out by reason, and for the greatest importance of any. For, as Puffendorf very justly observes, it is not easy to imagine or allow, that a parent has conferred any considerable benefit on a child by bringing him into the world, if he afterwards entirely neglects his culture and education, and suffers him to grow up like a beast, to lead a life useless to others and shameful to himself.—*J. Blackstone.*

PAPERS FOR THE SCHOOLMASTER.

No. 29. JULY 1, 1853.

Evening Schools.

Notwithstanding all the exertions in the cause of education, which the last few years have witnessed, and the fair measure of success by which they have been attended, a large field still lies open to our efforts. We have no occasion as yet to imagine that we have no more battles to fight with ignorance, or that we have arrived at the limits of the march of education. Doubtless much has been done toward the education of the people; but the observations of those interested in the cause, discover how much work as yet lies untouched. In the time when education was a mere name, the universal apathy which prevailed upon the subject produced no startling contrast which might arrest the attention. The energy now awakened stands out in strong relief from a back ground, which unfortunately occupies only too large a surface of the picture. The school in an agricultural district, in which a real educational work is going forward, and around which an educational interest has been aroused, compels us to reflect upon the many which probably surround it, in which the new-fangled systems and practice of their neighbour excite only a languid marvel, a pitying sneer, or a comfortable appreciation,—not improbably of the blessing of some antiquated endowment, which forms a fortunate breakwater against the energies of an educational clergyman, or the visits of an unwelcome Inspector. The school in a town, in like manner, too often compels the same unpleasant comparison, or reminds us of the many towns in which education is still at a discount. But, so far, our observations have only been directed to a field of labour partially, at least, occupied: another scene may meet our view in which still less has been effected,—a scene which, presenting itself more or less throughout the country, makes itself more prominently visible in our towns, especially in those which form the seat of either one, or many, of the branches of our manufacturing industry. It may be a pleasing sight to the friend of education to visit some locality in which his views are carried out; to go from school to school, and find the children in each receiving an education worthy of the name. But, by way of change, let us place our delighted educator in one of our densely-populated manufacturing towns,—it may be in some one of the busy hives of cotton-spinning Lancashire. It shall be the hour when the Ten Hours' Bill is causing every mill to disgorge its crowd of workers. Our educational friend watches the stream of "mill-hands," and he cogitates, it may be, upon mill-minds. He may probably be aware that "half-timers,"—children below a certain age,—are required by law to attend school for a portion of the day; but the most of those before him are "whole-timers,"—young people from fourteen and upwards: have they, he will ask, received any education, any knowledge even? The friends of education may wish it, may be ready to afford it; but amid these steam-engine "giants with one idea," and that "work, work, work;" amid this din of machinery and whirl of spindles, when are they to find the opportunity? We will introduce our educator into the realms of the power-loom, the cloth-mill, the print-works, the bleach-works, the dye-house; we will conduct him into the arcana of silk-mills, lace-making, ribbon-weaving; into the workshops of the multi-form employments which find a type in Birmingham, in each and all he finds a crowd of young people, male and female, earnestly intent upon their various occupations. Not to enumerate any more employments, in those which we have mentioned, and in many more, he finds employed those who shortly will be, if they are not already, the young men and women of their generation. The question will recur again, are they educated? Does their knowledge embrace even reading and writing? In too many instances the answer must be, they are uneducated. The value of daily bread has pre-occupied hitherto the time for education. We say advisedly the time, as contra-distinguished to the wish, for education. Many a diligent worker in the heat and din of the mill or the manufactory, has longings after "more things in Heaven and earth than are dreamt of" in the mere routine which affords him his subsistence. What season has he then for their acquirement? We would answer, by the heading of our article,—Evening Schools. None who are conversant with the feelings and character of the artisan, will deny that a wish for education is generally diffused throughout, at least, the younger portion of the class. It may be said, that the fatigue and labour of the day would leave but little energy to be devoted to an evening of instruction. Experience finds it to be otherwise. The employment of the day is mostly mechanical, in which the mental exertion of the evening affords an agreeable variety. It offers even to some a new species of manual exercise, attended with difficulties of which those have no conception who have not witnessed the efforts of toil-blunted fingers to hold and guide the pen,—no easy task to joints, stiffened perhaps by the constant repetition of one particular movement, into a habit sufficiently perplexing to the writing master. Here and there, clearer-sighted masters have afforded every facility to their work-people for the attainment of evening instruction. The results have shewn, not only that the facilities are appreciated and used, but that the benefit is reciprocal: that the educated is superior to the uneducated worker, not only in a higher tone of moral character, but even in manual aptitude, increased by the intelligence superadded to mere mechanical dexterity. The opportunity of instruction once afforded, soon becomes highly prized, and knowledge is frequently acquired with a surprising rapidity. Exceptions are of course to be expected; but the almost intelligent action, the undeviating precision, and the restless activity of machinery, seem to produce a stimulating effect upon the mental organization of even the youngest of its attendants. Such, at least in manufacturing districts, are the materials for evening schools. Scattered and isolated experiments have shewn both their value and success. Still the masses, to whom we have already referred, though ripe for education, are to an unimaginable extent devoid of it. The early withdrawal from school permits but the acquisition of little knowledge;—the subsequent occupation leaves the mental powers to exercise themselves only in the excitement of trashy and pernicious amusements. The establishment, in many places, of "Free Libraries," will supply the working-man with the means of intellectual pleasures; but it must be the Evening School which will render them available. Observation shews them to be undeniably needed;—experience leaves no doubt as to their success. The management of this new field of education is one requiring peculiar tact and delicacy. The classes amongst whom its operations lie unite, to great mental acuteness, a spirit of great independence, and by no means an unyielding acquiescence to authority, simply exhibited as such. The teachers to unalterable firmness, must unite a spirit of earnest solicitude. He must bear in mind that he is dealing with minds which already have occupied a strong bias, which a mere official authority will never overawe, or a mere dogmatic teaching ever interest. Working cheerfully with the intelligent, patiently with the dull,—making each scholar feel that he is a self-educator, whom the teacher is ever ready to advise, prompt, or to assist,—such a master will soon find a reward in the success of his labours, such as does not fall to the lot commonly of the instructor. He has not so much to fear as they from the obliteration of his efforts; his material may be harder to work, but the results will be more durable, and the effect more speedily evident. In various localities an admixture of practical instruction would be beneficial; in some, a knowledge of drawing—in others, the outline of chemistry. This, in no case, must degenerate into amusement; in all, it must be instruction. Amusement, more exciting, can readily be found;—it must be knowledge, which can alone afford the needful spell. We trust that this, as it is a new, may be a widening field for education: it may be only a temporary necessity,—that it is a present necessity can admit of no doubt. Large masses are at present without means either of religious knowledge or secular information;—they are not unwilling to receive both;—they are willing to give their time and industry, and to a great extent to sacrifice their present pleasures. It only remains that we should meet their willingness; should supply them with more than an equivalent. When we are convinced of the duty, we shall not be long in devising the means.

M. U. R.

Examination for Certificates.

Numerous questions are forwarded to us on the several points connected with preparation for Government Certificates of Merit. As it is difficult to reply separately to each, we propose to devote an article or two to the subject. The value of Certificates of Merit seems to be considerably enhanced at the present moment. This arises, we suppose, from the fact that the Education Bill now in the House makes the possession of a certificate essential to every teacher to be employed in connexion with the contemplated arrangements; and another reason may be, the *on dit* that retiring pensions will be granted only to those who hold Government Certificates. That there is a large number of teachers without certificates is certain;

and it is equally certain, that many of them have no good plea for their present position;—such for instance are those who have had the advantages of a Training College for twelve or more months.

Our remarks, however, will have more especial reference to those *who have the will*, but whose advantages have been limited,—to those who, with many disadvantages, have nevertheless won for themselves a respectable position as teachers of Elementary Schools. To such we would give words of encouragement, and urge them to vigorous efforts to secure the required certificate, which will considerably increase their influence, whilst, at the same time, it will add to their means and respectability. In every case, where practicable, we would strongly recommend teachers, who have not had the advantage of a year's course in a Training College, to put themselves in the way of obtaining it. We are quite sure there would be every disposition on the part of the authorities of such institutions to treat with teachers under these circumstances on the most liberal terms; and we are equally sure that the superior professional position which would be thus obtained by the teacher, would very far overpay any amount of self-denial which a course of this kind would require. Still there are cases where this would be impossible, and for such especially we write.

In the last "Broad Sheet," the subjects for examination are thus arranged:—

SCHEDULE A.—1. Religious Knowledge — Scripture, Ecclesiastical History, Liturgy, Articles, and Catechism. 2. Reading. 3. English Grammar and Composition. 4. Penmanship. 5. Arithmetic and Book-keeping. 6. English History. 7. Geography. 8. Organization, Discipline, and Management of an Elementary School. And, besides, "in one at least of the following subjects":—1. Algebra, as far as Simple Equations. 2. Geometry—Euclid, first three books; and Mensuration. 3. Mechanics. 4. Elements of Physical Science. 5. Popular Astronomy.

SCHEDULE B.—1. Vocal Music. 2. Drawing from Models. 3. History and Etymology of the English Language. 4. General History. 5. Higher Mathematics. 6. Languages.

Appended to the schedules is the following explanatory note:—"A sound acquaintance with the subjects in Schedule A. will be sufficient to entitle a teacher to one of the two higher classes of certificates. Candidates who may have studied further will find an opportunity of exhibiting their proficiency in the subjects named in Schedule B. All candidates should endeavour to acquire the power of teaching, Drawing from Models, and Music from Notes. But in selecting any other subject from Schedule B., will do well to confine themselves to a single branch of knowledge, and master that well."

Teachers owe many thanks to the Rev. H. Moseley for his untiring efforts to effect this very satisfactory arrangement of the subjects for examination, as well as for the promise to deal liberally with those who bring up Schedule A. really well.

Those concerned have now the full scheme before them, and will do well carefully to distinguish between what is essential and what is not. A teacher's knowledge of his present acquirements should enable him pretty readily to determine what ground he can now efficiently cover, and what he may hope to add before the time arrives when he proposes to present himself for examination. Above all things, we would caution him against attempting too many subjects. We have known some respectable men fail altogether, solely through pursuing this course. Theirs was a large superficial crust, with no depth; so that undertaking too much, and slighting several of the *essential* subjects, in order to have more time to read up the higher, the natural result was, the *whole* bore evidence of a desultory mind, and the Council Examiners did not feel warranted in recommending a certificate of any kind. Execute the school subjects well, and you cannot fail to succeed, and that honourably.

Having, after mature deliberation, determined on the subjects you will undertake, your next point will be to make a fair division of *time*, that each may receive attention proportionate to the necessity of the case. The teacher who proposes sitting for a certificate, must, at whatever amount of self-denial, be prepared to devote to this purpose three hours a day, as a minimum. This time must be apportioned out amongst the subjects proposed to be taken up, so that each subject may have its due share of time, during each successive week. How much should be devoted to any particular branch must depend upon the amount of information now possessed. It may be quite possible that the student may feel himself so strong on some subjects, that one hour each week for revision will suffice; whilst in others, so much remains to be done that three or four hours will barely be enough.

Difficult as the teacher may find it to be, to determine what to do, and what to leave undone, or to hunt up three hours a day clear of other engagements; still more difficult will he find it to do the work required. Done, however, it must be. For a teacher to present himself, as we have known some to do, without previous reading, and that specially for the purpose of a Government Examination, is the merest trifling, unworthy of any man who would be distinguished by honourable ambition. Whoever seek a certificate, must work for it. We quite understand the toil it must be to those engaged in keeping a school during the day; yet the toil must be endured. It is clear enough now, that masters without certificates are beginning to hold a doubtful position; and hence the work is not of choice, but of necessity. And difficult as it is, it has been successfully accomplished,—and so can be again,—by those who to self-denial add energy and perseverance: and we will add, that there is no class of teachers,—male or female,—we honor more than those who, without advantages, have fought their way into the rank of the certificate class-list. It should be borne in mind, that the three hours' reading may embrace the subjects which need to be well mastered for the requirements of the next day's school. By this means, the master's energies will not be withdrawn, but more fully devoted to his more immediate duties.

In our next article, we propose to remark briefly on the Text-books and Modes of Study connected with the subjects, as they stand on Schedules A. and B.

Notes of Lessons.

BIBLE LESSON,—I. Thess. v. 8.

I. Introduction.

1. The helmet is a very strong kind of cap worn in battle to protect the head. It is usually made of some hard metal, either brass or iron. On the top is a solid bar or ridge, to receive the blows that may be dealt upon it. In the front it has a piece that can be pulled down over the face, and being made so that the wearer can see through it, is called a visor.

2. The Hope of Salvation.—We are all sinners, and as such we have been justly doomed to eternal death. We have only one means of being saved, that is by Faith in Christ Jesus. This Faith or Hope of Salvation will cheer and comfort us in our journey through life. It will support us in our trials and strengthen us in the hour of temptation. We shall not fear death, knowing that a crown of life is prepared for us. We shall fear none but God, and be happy in doing his will.

II. Lesson.

As the soldier in battle who has lost his helmet is continually fearful lest some blow should fall on his head and deprive him of life;—he loses his courage; he is glad to keep in the background—perhaps to run away altogether—he is unable to do his duty. So the Christian who has not the Hope of Salvation continually before him fears to perform his duty if it becomes dangerous to do so. He fears danger and death, is discouraged by adversity and often yields to temptation On the other hand, the soldier who has his helmet, and the Christian who has the Hope of Salvation meet danger fearlessly, and in their confidence and courage triumph over their enemies.

III. Application.

Have we the Hope of Salvation?

E. T. S.

ANIMAL HEAT.

(OUTLINE NOTES.)

Our bodies contain heat; how is it formed?

1. *Its Source.*—Breath formed of carbonic acid and hydrogen; these are produced by *combustion*—illustrate by candle burning. The union of oxygen, carbon and hydrogen produces combustion. Air contains oxygen—body contains carbon and hydrogen; when these unite there is combustion.

2. *Distribution.*—Carbon and hydrogen in the body, oxygen not. Chest contains heart and lungs. An air-cell, suppose one as big as an orange; a small pipe from wind-pipe conveys air, a small artery conveys dark blood, a small vein takes away bright red blood; this change produced in the air-cell by the oxygen. Blood contains iron, iron attracts oxygen. Carbonic acid expelled. This blood now containing oxygen is conveyed to the heart, and from it through the body. Wherever it comes there is carbon and hydrogen, with which it combines—what will result? Combustion, and this *produces our heat.* Combustion takes place all through the body. 14oz. of carbon consumed daily.

3. *Continuance.*— But if there is constant combustion, body will consume away. What then? Fuel must be supplied—this in food; food must contain *carbon.*

4. *Inferences.*—Some foods contain more carbon than others. When should such food be taken? In winter.—Notice oils of cold countries. Sometimes a fire is put out by too much fuel. If a person has too much fat, or has eaten too much, what should he do? Notice a lad running—he becomes hot; why? He takes in more oxygen—then fat people and people who eat much should take a great deal of exercise.

THE WIDOW'S MITES.

(FOR CRITICISM.)

MARK XII. 41 — 44.

Let the passage be read simultaneously.

I. Introduction.

This event happened during the last week of Our Saviour's life on earth, or what is usually called *Passion Week.* We are here told that Jesus sat over against the *treasury.* This treasury was for the purpose of receiving *money*, of collecting money from those who were willing *to give.* Money was cast into it both by rich and *poor*, for the rich cast in *much*, and the poor widow came and cast in her *two mites.* So that in this both rich and poor joined together, both gave as they were able, the rich gave of their *abundance*, and poor gave of their little or poverty.

The rich would be able to give much because they had *much*, but the poor because they had little would be able to give *little.*

Many of you will perhaps have seen in some churches boxes fastened to the wall in different parts of it, and over them the words "Church Missionary Society," "For the Poor of this Parish," &c. Now these boxes are for the purpose of collecting *money*; this box for the *Church Missionary Society*, that for *the Poor*, and so on. All may give, both rich and *poor.* Now this treasury was very much like these boxes, though it was not for the same purpose. It was in the chief Jewish place of worship and that was the *Temple*, in one part of it called the Court of the Women. But the money that was given was not for any Missionary Society, nor for the poor. You know that the Jews in their worship offered a great many sacrifices. They had their daily, weekly, monthly, and yearly sacrifices. Besides these, there was the Incense, the oil for the Golden Candlestick, and many other necessary things, and the great number of servants that was required. Now all this in the course of a year would amount to a great sum of money and all of it was to be paid by the people. All the money cast into the *treasury* went to defray or clear the expenses of the Temple service. Just as churches at the present day are for the service of *God*, so was the Temple then, only in a different *manner.* So that the people who cast money into the Treasury were doing so for God's *service.* They were giving to the service of *God.* What was the position of Jesus? Sat. And he was sat over against *the trea-*

sury. What do you mean by "over against?" Opposite.

II. Lesson.

Christ then is watching the people cast money into *the treasury.* The rich cast in *much.* Now mark what is said about them. No one is particularly mentioned, neither is the sum of money which they gave. Out of the crowd that gave, one, however, is particularly mentioned by our Lord, and that was *a widow;* yes, and not only a widow, but a *poor widow.* The sum of money she gave is also mentioned, and that was *two mites,* which make *a farthing,* and these two mites were all *she had.* Nothing more had she got, she gave *all;* and we have just said that she was a *poor widow,* and therefore would have no husband to go out and work for her, and bring his wages home, and both live happily together. No, she was alone, and she was *poor.* Two mites was all she *had,* yet she freely gave them. Very likely she would come and cast her money in quickly, and try to get out hastily to prevent any one seeing her, or how much she put in; but she was not escaped by the eye of *Jesus;* He sees her, and afterwards praises her action, yea, even speaks of it publicly, in order that others may imitate her. For He calls unto Him His *disciples,* and tells them that the poor widow hath cast more in than all they which have *cast into the treasury.* Why we have just been told that the rich cast in *much,* and the poor widow had only her *two mites,* and yet all that the rich gave did not equal that which was given by the *poor widow.* The reason of this is given us. The rich cast in of their *abundance,* but she of her *want* did cast in *all that she had,* even *all her living.*

The rich by giving a large sum of money would not feel it because they had *much,* but the poor widow gave even her last *farthing,* perhaps she did not know where her next meal was to come from, but she trusted in God.

III. Application.

In doing this both rich and poor were giving money to the service of *God,* and this was quite right, and what we ought to do, but yet you see how different this is from events of the present day. If there was a collection for some great building, or some Society, and some rich man gave a large sum of money, what do you think would be done? His name would be published in the newspapers. Yes, and not only his name, but the amount he gave, what he gave it to, and every particular. But in this event the rich are not mentioned particularly, nor the sum they gave, the only person mentioned is the *poor widow.* The amount of money given is not looked at, else the praise would have been bestowed upon *the rich* but it was all given to the *poor widow.* Christ looked farther than the mere outward action. His eye could pierce more deeply, he looked at the *heart.* He was not guided by outward *actions.* He saw that the poor widow was really devoted to God, or she would not have given her last *farthing.* A person may give a large sum of money to a society or some institution, but God will look at his motive for doing so. If his motive was to be spoken about, and to get his name spread abroad, He will not accept it, no matter how large the sum of money. But if it be for the real purpose of promoting God's service and His glory then He will look upon it, and be pleased with it. All of you have it in your power to promote God's service.

You can put your halfpenny or penny in the Missionary box on Sunday. There are a great many little heathen boys who know nothing of God, Heaven, Hell, or Jesus, and won't you pity them and help them? You can do it in that way, and this would even be more than the poor widow gave. And if Christ praised her, you may be sure he will look down, and smile upon little boys if they only give from a willing-heart and a wish to promote His *service;* and God looks at the motive, or at the heart, and not the *action.*

REMARKS ON LAST NOTES.

In the notes before us, we think we perceive that their writer has a fair apprehension of the principles on which Scripture lessons should be drawn up. These principles have been already stated.

The introduction contains such explanations as the narrative requires in the lesson there is an attempt to affect the heart by means of the narrative, and there is a practical application of the subject.

Yet, in looking over the lesson, we cannot but remark that the different steps are not clearly and firmly taken. This is a matter of great importance with children. If you pass on rapidly, or you mingle several subjects, the ideas obtained are very confused, and the heart is not impressed, nor the conscience awakened.

Here, a woman makes an offering, which in itself is scarcely worth acceptance, but which, because of the sacrifice it involves, and the motive that prompts it, obtains public commendation from our Saviour, teaching us the lesson that an offering to God has no intrinsic value; that it is not at the *amount given*, but at the amount remaining; in fact, that it is at the motive which God looks. The lesson, we submit, should bring out these points, so as to impress us with Christ's approval of the great sacrifice the poor widow had made, and should be followed up with an urgent application of—What Sacrifices do we make for God?

The method of communication adopted by the writer,—the elliptical method,—needs to be handled with great care and watchfulness, as its tendency is to foster habits of the most slovenly and indolent description. In its right place, as an instrument of attention and during recapitulation, the ellipsis—if of sufficient difficulty—is of some value; but where no mental effort is required, or where it can be filled only by a guess, it cannot but be injurious. Now we look in vain through these notes for an ellipsis of the right kind. Any of them could be filled by a lad of six years, without any great effort. Frequent questions, with full answers, are to be preferred to the ellipsis.

BRIEF NOTICES OF NOTES OF LESSONS.

As our Notes of Lessons, furnished for criticism or otherwise, have greatly increased on our hands, since we attempted this department of labour, we think it due to our correspondents to give in future a brief notice of their communications, reserving to ourselves the right of publishing them with more extended criticism as opportunity offers.

THE BARREN FIG-TREE.—Full Notes—in Reserve.

The Ruler's Son, *John* iv., 46—53, *by T. R.*—Rather meagre, furnishing little thought, without method. *Try again.*

Two Blind Men.—Matt. IX. 27—31, by a Sabbath School Teacher.—A Sabbath School Teacher has a fair apprehension of the means by which to awaken the interest and enlist the sympathies of children. He has prepared good matter, following the order of the text, on which to cultivate the emotions of the heart. His chief defect—one we have often observed in

Sabbath-schools—is breaking the narrative, in order to impress some religious sentiment; the culture of the conscience should have a distinct place in the lesson, and not be mixed with narrative, explanation or description.

Christ Weeping over Jerusalem.—Luke XIX. 41—44, by J. R.—Some of the matter excellent, and on the whole fairly arranged, but deficient in method. Instead of saying "Picture out the scene" "Describe the mount" "Explain the terms," *do it* as you intend when giving the lesson.

Christ in a Storm.—Matt. VIII. 23 — 28, by a Pupil Teacher.—Not suitable for publication, but full of promise —the picture of the scene on the lake is very fairly drawn, but the application is somewhat inferior.

Supplementary Scripture Illustration.—No. 1. *Amusements.*—J. B. R. —Very much information, calculated to illustrate some passages of Scripture, but not suitable for Gallery Instruction.

The Alpaca by G. N.—These are Notes of Information, drawn up with considerable care, but not suitable in our opinion for Collective or Gallery teaching, the purpose of which is not to communicate knowledge merely, but to develope the mental powers. The question of the domestication of the Alpaca which is discussed at some length, would be more suitable for the pages of a magazine devoted to agricultural interests, than to the elementary school.

The Ostrich, by E. M.—E. M. has fallen into the same error as G. N. As Notes of Information, these are worthy of praise, but such Notes, if published, would but save others the labour of preparation, a thing not at all desirable. What elementary teachers need is an acquaintance with the best methods of communication, therefore Notes sent to us should exhibit the processes by which it is intended to developé the mental powers of the children, and should consequently be adapted to one of the periods of school-life. Vide vol. 2. "Education."

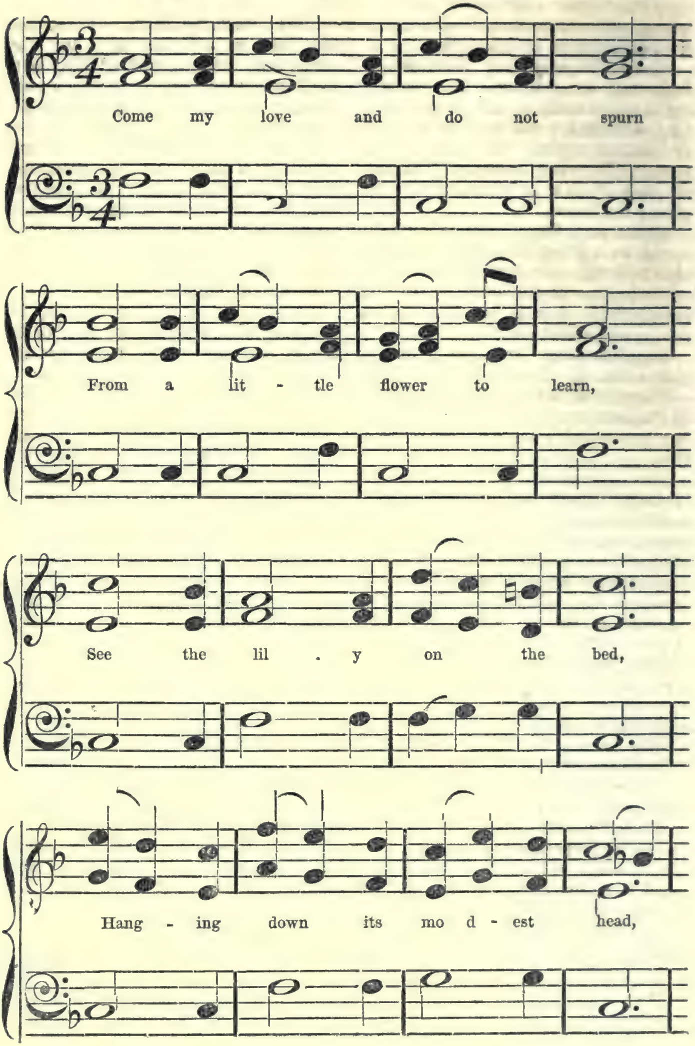
The Fenet, by E. M.—These also are Notes of Information. But why select such animals as this? Why go to the Torrid zone, of which children's notions, at the best, must be vague, for subjects, when the purpose of the lesson is to train the children to observe the adaptations between the structure, and habits of the different animals? What animals are better adapted to this purpose than those which come within the range of daily observation, and with the localities of which, the children are familiar?

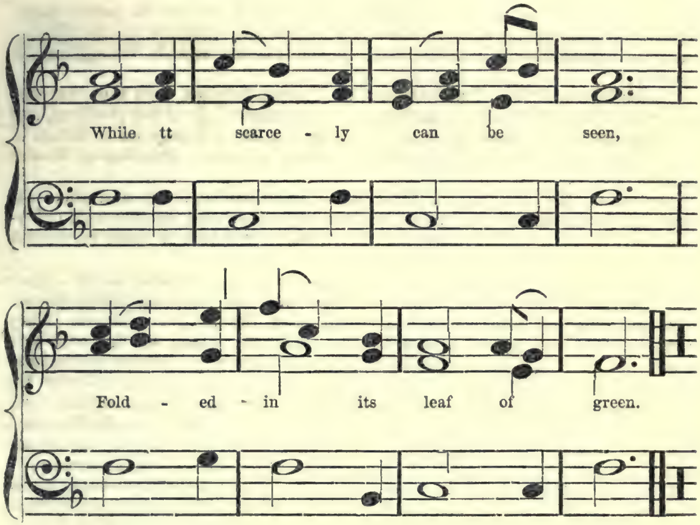
Zoology, by A. G.—A. G. is, we presume ,a very young teacher, or he would not send us a lesson on the *Classification* of animals. Such a lesson supposes that the facts on which it is grounded are known; but how impossible is it in an ordinary elementary school, where the term of school-life is so short, and the subjects of instruction so many, to give even a scanty acquaintance with those facts. The teacher who attempts such a lesson may easily discover that the children are receiving—not ideas—mere words.

Bede, by J. R.—J. R. has been at great pains in collecting information to illustrate the life of Bede: but what advantage is to be derived from such lessons in elementary schools? They can be at best little more than lessons of information, and such lessons are of very little use to children, the information being soon forgotten; but let the teacher *discipline* the minds of his charge, and the benefit will remain long after school-life is over. All such Lessons as these are drawn up from not adverting to the legitimate province of Collective or Gallery teaching. See articles on the "Gallery" in former numbers.

The Lily.

Words by Miss Taylor. *Music by J. H. Cross.*


Come my love and do not spurn
From a lit - tle flower to learn,
See the lil . y on the bed,
Hang - ing down its mo d - est head,


While tt scarce - ly can be seen,
Fold - ed - in its leaf of green.

II.

Yet we love the lily well
For its sweet and pleasant smell,
And would rather call it ours,
Than a many gayer flowers.
Pretty lilies seem to be
Emblems of humility.

III.

Come my love and do not spurn,
From a little flower to learn;
Let your temper be as sweet
As the lily at your feet.
Be as gentle, be as mild,
Be a modest simple child.

Educational Intelligence.

CHELTENHAM CHURCH OF ENGLAND TRAINING COLLEGE.

The Annual Meeting of the Cheltenham Church of England Training Schools was held on Thursday, June 17th in the Music Hall of the Royal Old Wells. There was a very numerous attendance of the friends of education, to witness the process by which instruction is conveyed by the system in operation in the schools connected with the College.

It was explained at the outset of the proceedings by the Rev. F. Close and the Rev. Mr. Bromby, that this spectacle was not to be looked upon as an examination of the children, to show how much they knew, but merely to give a specimen of the usual class lessons in each school, so that the public might form an idea of the system of education which the students in the College were qualifying themselves to teach in the various schools throughout the country.

The children of the Infant section of the Normal Schools, were then marched into the Music Hall and ranged on seats running back from the platform, and reaching to the drop-scene over the stage. A Bible Lesson on II. Kings vi. 1—8 was then given by Mr. Gill; followed by a few questions in Mental Arithmetic.

The regularity with which these little creatures kept step and time—the eagerness with which they attended to their teacher, and the thorough enjoyment which they appeared to feel, gave the spectators a most favourable impression of the system of teaching.

On the removal of this class, the children of the juvenile section were marched into the room, and wound their way on to the platform. These schools, boys and girls, could not contain less than from 150 to 200 scholars. They went through a Scripture lesson by Mr. Sutcliffe, which was followed by a lesson on the bee, and an examination in Scripture, geography, and mental arithmetic, by Mr. Gill; in all of which it was evident how completely the facts and reasoning of the subjects treated of, were made plain to their comprehension. The children also sung several simple pieces with admirable effect, and, we cannot help thinking, that not the least elevating feature in the system is this training up of the children in the love and practice of vocal harmony.

The boys in the Commercial school—the sons principally of tradesmen in the town—were then marched in, and put through a Scriptural lesson by their master, Mr. Percival, and an object lesson by Mr. Sutcliffe; followed by an examination in Geography; and Scripture History by Mr. Percival.

The spectacle was altogether a pleasing one, and appeared to give entire satisfaction to the audience. In the intervals of the school exercises, the male and female students of the College, sung the following compositions, under the leadership of Mr. Kirk, the music master to the College:—"And the Glory of the Lord,"—Handel; "Awake, Æolian Lyre,"—Danby; "Departure,"—Mendelssohn; "Nunc Dimittis,"—Ebdon; "Hallelujah Chorus,"—Handel; and at the termination the "National Anthem."—*Abridged from the Cheltenham Examiner.*

TESTIMONIAL TO MR. AND MRS. WATERWORTH, SUPERINTENDENT AND MATRON OF ST. MARY'S HALL.—On Thursday evening, after the examination at the Royal Old Wells, the Female students at present in training at St. Mary's Hall, met in their large room, for the purpose of presenting Mr. and Mrs. Waterworth with a small testimonial, in remembrance of the uniform and paternal kindness, shown to them during the time they have been under their care, and to express their regret at their leaving the Institution, which they have for many years so ably conducted. The following address was read at the time of the presentation of the Testimonial, which consisted of a very handsome Mahogany Centre Dining Table, Pair of Glass Lustres, Plate, &c.—

"June, 16th, 1853.

"We, the undersigned, being a committee chosen by the students of St. Mary's Hall, Cheltenham, take this opportunity to express the deep regret which is felt by them and also by those who were under your kind care at St. Julia's, at the approaching termination of your connection (so long and so happily maintained) with the Training Institution.

"But while we feel and express sorrow on this account we are happy to congratulate you on the opening which Providence has been pleased to place before you, so that your labours will still be carried on where your great usefulness has been so long felt.

"The present Students, with those who have been in connexion with you at St. Mary's Hall or St. Julia's, esteem it a privilege to mark the sense of the loss about to be sustained by the Institution, by the accompanying testimonial, which we beg you to accept, as a small token of our gratitude and affection.

"Wishing you every success in your future undertakings, and that it may please God to spare you long to aid in the great work of Education, we subscribe ourselves, in behalf of the Students,

"Yours very respectfully,
"THE COMMITTEE."

Mr. Waterworth, on behalf of himself and Mrs. Waterworth in accepting this mark of the students regard and gratitude, expressed an earnest desire that the presenters might enjoy many years of health and happiness, and become instrumental in carrying on the great work of Education in which they were all about to be engaged, in the faith and fear of God.

Mr. Waterworth has, we are happy to find, been appointed one of the commercial masters of the Cheltenham Grammar School.

The following Circular comes to us *three months* after the meeting. Our object in naming this fact, is to show that we are not chargeable with the lateness of its appearance.

It has long been felt that a conference of Church Schoolmasters from various parts of the Country, would prove both interesting and useful; such a Meeting, on a limited scale, took place at St. Phillip's School, Birmingham, on Monday and Tuesday, the 28th and 29th of March, 1853, at which Masters from the following places were present, either as authorized deputations from Local Associations, or in their individual capacity; viz.—

Birmingham, Bridgenorth, Derby, Harborne, Leamington, Liverpool, London, Loughborough, Manchester, Northampton, Norton, Rotherham, Sheffield, Tamworth, and Warwick;

And Letters were read from Masters at Anglesea, Bolton, Brigg, Carlisle, Chelmsford, Durham, Essex, Leeds, Litchfield, London, Nottingham, Kent, and other Places, expressing approbation of the objects of the Meeting.

All present expressed themselves highly gratified with the opportunity thus given them of consulting upon matters affecting the common weal, and hoped that arrangements would be made at some future time for a similar Meeting on a larger scale.

The following Resolutions were unanimously adopted.

I.—That this Meeting considers it very desirable that the whole body of Church Schoolmasters in England and Wales should be brought together in closer bonds of sympathy and co-operation; and that the formation of Districts, containing several Associations each, with a District Secretary, and the union of these with a Central Secretary, seems well-calculated to effect this object. And that the following officers of Associations present at this Meeting, viz:—Messrs. Rathbone, Boardman, Tubb, Simpson, R. Baker, and Ward, be requested to draw up, by after communication, details necessary for carrying out this resolution.

II.—That in the opinion of this Meeting the naming of definite Text-books, by the Committee of Council, on the subjects of Examination for Certificates, would be hailed by Teachers as a great boon, and that this, and the classification of the subjects of examination, according to the suggestion of Professor Moseley, in the Minutes of '51 and '52, would materially encourage the student in gaining a thorough mastery of individual subjects, instead of that superficial knowledge of which Her Majesty's Inspectors have so frequently complained.

III.—That this Meeting believes the suggestion made to the Committee of Council on Education by the Rev. W. J. Kennedy, in the year 1849, as to the office of Sub-Inspector being conferred upon Masters of Elementary Schools, is founded upon a liberal and enlightened opinion of the qualifications possessed by such Masters; and considers the adoption of such course would be a means of extending the advantages to be derived from inspection, and of opening a legitimate field of promotion to the Schoolmaster.

IV.—That Professor Moseley having with his customary anxiety for the well-being of the Schoolmaster, suggested a system of Government Annuities for Elementary Teachers, this Meeting is of opinion that a measure founded upon principles similar to those for Government Annuity Societies, with those proper additions to the amounts of Assurances which the uncertainty of life in the scholastic profession warrants, and which are otherwise required for the general weal of the whole body of Schoolmasters in the Kingdom, would meet with the approval of Elementary Schoolmasters.

V.—That this Meeting deems it desirable that in all Schools under Government Inspection a fixed curriculum of work should be prepared by each Master from year to year, and adhered to; and that the Inspectors of the various districts be requested to confine their examinations as closely as possible to the said curriculum.

VI.—That this Meeting begs to offer to the Hon. and Rev. G. M. Yorke, Rector of St. Philip's, its cordial thanks for his great kindness in allowing his School-room for the purposes of this Meeting.

WILLIAM ADAMS, *Chairman.*

VII.—That the thanks of this Meeting be presented to Mr. Adams, for his able and impartial conduct in the chair.

In accordance with the first resolution, England and Wales are divided into Nine Districts, which, with their Secretaries, are given below:—

Northumberland, Cumberland, Westmoreland, and Durham—Mr. REED, Blue Coat School, Durham. Yorkshire—Mr. WILLIAMS, Dringhouses, York. Derby, Lincoln, Rutland, Leicester, Norfolk, and Suffolk—Mr. WARD, National School, Rotherham. Cambridge, Huntingdon, Bedford, Herts, Bucks, Oxford, and Northampton—Mr. SIMPSON, All Saint's School, Northampton. Warwick, Worcester, Hereford, Monmouth, and Gloucester—Mr. BAKER, National School, Leamington. Devon, Cornwall, Somerset, Berks, Dorset, and Wilts—Mr. TUBB, Edgbaston Parochial School, Birmingham. Middlesex, Surrey, Sussex, Kent, Essex, and Hants—Mr. RATHBONE, *(Pro. tem)* Anglesea, Carnarvon, Flint, Denbigh, Lancashire, Cheshire, Salop, and Stafford—Mr. RATHBONE, Earl Stamford's School, Carrington, Manchester.

It is proposed to develope the system of Association; and to have an Annual Meeting of all the Associations in their respective districts, which might be so conducted as to act as a healthy stimulus to re-invigorated exertion in the important work of the teacher.

It also appears desirable that there should be an interchange of papers read at associations;—this comparing of ideas, embodying the results of actual experience, would very probably assist in arriving at something like rational views concerning Elementary Education, and tend to confirm, or otherwise, the various theories broached upon it. Reports of Associations might also be very advantageously circulated.

The present system of a single Association, or of a few Masters, memorializing the Committee of Council on matters vitally affecting the whole body of teachers, without that body having been consulted, is open to very grave objections; and it is felt that the opinions of a very considerable number of those for whom legislation is sought, should be obtained upon such memorials before they are presented to the authorities.

The contemplated union appears well calculated to effect these objects.

A Memorial to the Committee of Council, on Resolutions II., III., and IV., will shortly be circulated among Associations and Masters, for their signatures, &c., before it is presented.

For further information apply to any of the District Secretaries, or to the General Secretary, Mr. Boardman, St. Paul's School, Alfred Street, Toxteth Park, Liverpool.

Correspondence.

Sir,—Permit me, as one of the Metropolitan Committee of Church Schoolmasters, to address you on the subject of the proposed Educational Periodical, advertised in your June number, trusting that you will allow this to appear in your next number, in answer to your remarks on this subject in your last.

You complain that in our prospectus we ignore your labours. Such is not the fact: your "Papers" are distinctly referred to in that prospectus; and I, for one, freely acknowledge the great usefulness of your work. But, sir, what we say is, that there is no periodical which is an independent organ of the Schoolmaster, in which he can freely express his thoughts, and where he can be fairly and freely represented.

You say that your "Papers" contain, with one exception, everything we propose to include in our work. I should be glad if it were so: but must beg you to refer me to the page where they contain Questions to be answered, Answers to Examination Papers, or anything that can be called a Guide to Teachers in the selection of text-books, or where you have advocated the just rights of Church Teachers.

I would at the same time suggest that your intelligence on school-matters is very meagre; and the Notes of Lessons, as well as the criticisms which follow them, will bear improvement.

Now, in these and in other things we think your "Papers" are found wanting: so that while we wish you God speed, and hope you will long continue your course of usefulness, we still see that such a work as we propose is necessary; and in this opinion we are supported by a large number of our fellow teachers.

I am, sir, your obedient servant,
J. J. FARNHAM.

[We can have no objection to insert the above communication, as as we have quite as strong a perception of our own imperfections as our correspondent has, though we might differ as to what they are. The writer urges that the Schoolmaster cannot freely express his thoughts, nor be fairly and freely represented. To this we reply, that we never reject schoolmasters' communications except when trifling or intemperate: that we have ever unfairly represented the schoolmaster we indignantly deny. Again, we are required to refer to the page which contains Questions to be Answered. On page 127 of Vol. II., a set of questions on School Management was given, the answers to which may be found in the pages following. The attempt was not repeated, because of the evident want of interest in questions on School subjects. This mode of improving students has rarely succeeded, except in the case of Mathematics. A guide for text books for pupil-teachers was given, page 170, Vol. I., and for teachers, page 250: moreover, all our "Notices of Books" have been written with special reference to Schoolmasters. In reply to the last question, we acknowledge that our object from the first has been to aid the cause of elementary education, and to elevate the character of the English Schoolmaster, without denying to others the special work (if they think it necessary) of advocating the just rights of Church Teachers. We must leave to others the task of determining how far the strictures upon the department of "Notes of Lessons" is just. Our object is not to afford information in "Notes," but to lead the teacher to give to his collective lessons a definite instead of a desultory form.]

Sir,—I trust you will pardon the liberty I have taken in thus meddling with the economy and management of your valuable little publication, but hope that I may be allowed to make the following suggestion:—"That, each month, questions (on subjects at your discretion) be inserted, to be answered by your readers."

It must, I think, be productive of good effect, as it will give many a zest for many things which hitherto they have not had an opportunity for.

If not encroaching too much on your valuable time, I should be glad to read your opinion on the subject in your next.

A CONSTANT SUBSCRIBER.

[We have tried to obtain such replies to set questions, but not with success. We print this month a set of questions on School Management, &c., will our "Constant Subscriber," or any other Subscriber having the same views, favor us with carefully written answers. We are quite disposed to aid in this matter.]

SIR,—I should feel obliged if some of your numerous correspondents could favour me with a few remarks on the utility of "Booking Sums" by the older scholars in an elementary school. after having worked them on their slates.

I have a few who pactice this, and although they certainly improve in forming figures, yet they lose ground in the intellectual work.

W. B. K.

SIR,—As Music is becoming an essential and an important part of education in all good schools, and as all "efficient teachers" are to prepare themselves with it, as a subject to which they are subject to be examined upon at their examinations, I think that you will confer a great boon upon those who are to be examined by inserting occasionally a few questions and a few subjects (such as those given at examinations) for essays on music.

I also beg leave to suggest (though individually for your consideration) that I think it will be more congenial to the general good cause if you will cause to be inserted in your periodical, alternately, "Notes on Lessons" on varied subjects, they will meet the approbation of many, I have no doubt, in as acceptable a manner as you could wish them.

Wishing you every success in the field of competition,

W. N.

[Music Questions will be found in this month's Papers; we thought our "Notes of Lessons" were on varied subjects. Will W. N. be kind enough to send us some examples of the subjects omitted.]

A correspondent will be obliged to any Teacher who will forward for publication his course of Religious Instruction; including Scripture Lessons for Gallery and Class Teaching, Catechism, Scripture Proofs, &c.; and the methods he has found most successful in these subjects.

SIR,—The enclosed suggestion, taken from a public paper, is of two much importance to those connected with village schools, not to bring it more immediately before their notice. The beneficial effects the Post Office would have upon the school, not mentioned in the suggestion, are so obvious, as to require no notice of them from me.

W. L.

A GOOD POSTAL SUGGESTION.

"Why," asks a correspondent, "should not the village Post-office be at the village school?" It is well known that in neighbourhoods where the population is widely scattered, if the members of a family go into the village only once a week, letters remain at the delivering house for days at a time, though there might be a child from the cottage at the village school, every morning and afternoon. There can be little doubt that if the post-office were at the school, letters would be distributed to their several owners more speedily and punctually. Our correspondent says:—"In this district, containing 900 inhabitants, I am building a school to accommodate the children of something like 500 of the population. It will be in a very central situation; and I would gladly allow the master to be postmaster likewise. The committee of council will give me considerable aid to build it; but I am sure that establishing a post-office would do more for education even then building a school, for the first would cause a desire for education (which frequently does not exist), where a school is built. The penny postage system has created a desire among the poor to be able to write." A point to which our correspondent makes no allusion, but which seems to us one of the best parts of his suggestion, is the improving effect it would have upon the fortunes of the schoolmaster. The office of postmaster is not out of keeping with his other duties, and the emoluments of the two posts would secure him a tolerably independent station in the little society by which, in rural districts, he would necessarily be surrounded.—*Atheneum.*

NOTICES OF BOOKS.

Inspectors Inspected.—A Review of the Operations of the Educational Committee of the Privy Council from 1846 *to* 1852. *A. Reed. Snow.*—This pamphlet is a reprint of a series of letters, first published in the *Patriot;* the writer undertaking to prove that "Voluntary and religious education will provide better teachers, better schools, a more telling educational influence on character, greater zeal among supporters, a greater interest in parents, a better effect in aid of our Sabbath-schools and our churches, a more wholesome influence on national virtue and real progress than, in the long-run, any system of national schools will produce." In the introductory chapter, which is mainly occupied by an effort to depreciate the educational efforts of Sir J. K. Shuttleworth, are some statements which we cannot pass without comment. Such is the following:—"While so much is due to religion, there is little or nothing in the new schemes to maintain the religious character of the teachers. They must all be certified by government; but such certificates afford no guarantee for religious character." The *animus* of this is transparent enough. to one who has hunted through the Council reports, it could not be unknown, that every means that could be devised, has been taken to secure religious character, as well as religious knowledge. Not once merely, but at every stage is religious character required to be certified by those most competent to judge. A youth cannot become an apprentice, nor pass any year's probation without; neither can he gain admission to a Training College, or a council certificate without; and more, every year this must be certified by the clergyman or school managers, before any government augmentation is paid. Can Mr. Reed point out any other class in this country, about whose moral character such guards are thrown, or respecting which such unequivocal testimonials are required? It is perfectly puerile to say that government certificates afford no guarantee for religious character. The certificates certify the possession of a certain amount of Scriptural and secular knowledge, in just the same way that university degrees do; but whoever argued that a university degree afforded no guarantee for religious character. It is time enough to do so, when they claim to be certificates of religious character. Mr. Reed knows as well as we do, that the relations between school managers and teachers are unaltered, in this respect, by the Council minutes, and that in any given case, the blame must be with the managers, and not at all with the Committee of Council. The proof given on page 49 is so meagre, that we do not think it requires a remark. On the same page, however, Mr. Reed says, "In the Church Normal Schools there is no test of decided personal piety, nor any probation by which it might be discovered." This is a very cool mode of proving the "failure in a religious aspect of the plans of the Committee of Council," and may be very satisfactory to Mr. R., but not so to ourselves, simply on account of its being untrue.

In the first chapter the writer says, "I will attempt to explain what the Committee of Council has been doing; and to describe those measures which I shall have hereafter to criticize." After a very brief sketch of the history of the educational grants, and the minutes of 1846, the results are thus stated, "It would be strange, if all these efforts, under the prestige of Government patronage, so liberally thrown open to all classes of the community *with a just impartiality, such as Governments have rarely manifested*, were not attended with some good and even striking results. For six years, able and intelligent Inspectors, with large powers, considerable funds under their disposal, and great zeal for education, have been visiting regularly the best class of schools, examining masters as well as scholars, normal schools as well as elementary, and distributing prizes of money grants and annuities to encourage them all. Their reports have circulated widely a multitude of well-arranged facts relating to English education, and of suggestions for its improvement, besides exciting emulation between masters and schools by the comparative merits attributed to different schools, as printed in their detailed tables relating to the examination of each. The teachers of schools have been pursuing their own studies in order to obtain certificates and an increase of salary. They have also, been compelled to pay more attention to the pupil teachers apprenticed to them, as well as to their schools in general, by the anticipation of the Inspector's yearly examination. The pupil-teachers, continually improving in knowledge and experience by their lengthened stay at the school have been valuable helpers in instructing the classes. Schools which did not fulfil the conditions of the Minutes of Council, have been induced to make an effort to comply with them in order to come up to the standard of admission to these various advantages In many, places, schools have been erected, where, but for Parliamentary assistance, they might not have been raised. And, although a large number of schools, from various objections to the system of the Council, have abstained from applying for grants, or submitting to inspection, yet even they have been constrained to make great exertions to keep their footing, in the face of the severe competition of schools aided by the public purse."

After this summary of satisfactory results, Mr. Reed by a most singular logic, attempts to prove from these same data the following points :—that taxation has been wasted by the grants—that the grants produce a mercenary spirit—that the plans have failed in an educational point of view—and that their influence is irreligious. To those of our readers who desire to know more fully the objections urged against the operation of the Council Minutes, we recommend the "Inspector Inspected" for particulars.

Joyce's Scientific Dialogues.—New and Enlarged Edition, by C. F. Walker. Longman and Co.—We think that a sufficient value has not yet been set on physical science as a branch of elementary education, neither has its moral influence been properly estimated. To us it seems fitted to occupy a place *next* to the necessary elements of instruction as reading, &c. Its value must be greater than that of some other subjects of school instruction, in proportion to the frequency with which its use will be of advantage. And what day of a man's life passes in which such knowledge would not be either useful or pleasureable? We can easily conceive its humanizing influences even on the most clownish, as also its power in weaning our industrial population from in-door amusements, and health-destroying indulgences, by giving them a developed appetite for nature, and natural phenomena. If properly taught, it would be one of the most effective courses of Natural Theology, and would secure not only a larger but more permanent knowledge of God's Infinite Power, Wisdom, and Benevolence, than is now done by abstract theological teaching. It is, we suppose on some such grounds of these that the Council on Education attach so much importance to the paper on Physical Science at the examination of teachers for Certificates of Merit.

Amongst the numerous manuals on this subject, few have been so popular as Joyce, and Joyce deservedly so, on account of its careful construction and great simplicity. It was however beginning to lose its hold on public patronage because of its age. In the present new edition an effort is made to bring up Joyce abreast of things as they are ; so that in again presenting to the public an old favorite, the publishers have wisely modernised and replenished it. The additions consist of ten chapters of new matter, partly to supply omissions in the original work, but mostly to bring up the new edition to the present advanced condition of scientific knowledge. These supplementary chapters being prepared on the same plan as before, unity of construction is preserved ; and where portions of the old matter has been recast, the simplicity which characterized the original work has received no damage. Several new diagrams have been added, and the old ones reproduced in a superior style. We most heartily commend this New Edition of Joyce, to the attention both of Teachers and their apprentices ; for a first book we know of none superior. Even the skilled teacher, though he may find in it but little absolutely new, may evertheless be considerably aided in the preparation of his "Notes," by its xamples of careful analysis, and its telling, though simple illustrations.

First Poetical Reading Book. W. McLeod. Parker.—This collection of poetry contains twenty-three lessons, some of which we think too difficult for a first series, though most are of a kind fairly within a child's grasp. Preceding each lesson are columns of the most difficult words, divided syllabically and marked with the accents; where necessary there is also an introductory description. Besides the helps already named, foot notes are given; both these and the introductions are of a very serviceable character, and give much additional value to the book. We have before spoken of the value we attach to the use of suitable poetry in schools, and feel now a pleasure in recommending Mr. McLeod's book, as one of the best ,whether for families or schools.

Second Poetical Reading Book. W. M'Leod. Longman.—This collection is as its title indicates in advance of the other, and is altogether a very superior book. The pieces selected show in their choice great carefulness as well as considerable taste; we have, however, a slight misgiving in reference to some of them, on the score of difficulty. As far as elementary schools are concerned we fear that they are not yet up to the higher kinds of poetry ; still we may reasonably hope that this difficulty will lessen every day. We feel disposed very strongly to question the propriety of introducing into school books obsolete spelling—we think it a positive evil. The construction of this book resembles that of the first, the chief difference being in the introduction of words with their meanings and roots, in the plsce of columns of spelling. The book closes with lists of prefixes, affixes, and roots. Leaving out of consideration the obsolete spelling, we can honestly recommend Mr. M'Leod's Second Book; and wherever a school is in a condition to profit by good poetry this collection will be found to render valuable service.

History of France. (Gleig's Series). Longman.—After reading some of the chapters in this history, we can safely recommend it as a book which ought to be found on every pupil-teacher's list. We would do so especially to those who are reading English History. The history of our own country in its most important periods, has always been closely connected with that of France, and where international transactions appear cloudy, when seen only on the pages of our own history, a slight knowledge of the History of France in its continuity, would at once make all clear. Those who propose sitting at Government Examinations will find this Abstract of French History of considerable advantage.

M'Leod's Edition of Carpenter's Spelling Assistant. Longman.—Carpenter's Spelling is so old a standard, that it needs neither introduction nor description from us. Its revision by a careful and methodical editor has much increased its value. Whilst we have no great partiality for employing children in "learning meanings," we admit there are good purposes which a book of this description may be made to serve. We know that Carpenter is used in some good elementary schools, as a text book for exercises in that class of words, "alike in sound, but different in orthography;" where it has not been introduced, we can cordially recommend it for that purpose.

The Christian Student, No. 8 *and* 9. *Whitaker.*—After looking carefully through these numbers we feel rather perplexed to determine for what class of students this serial is designed. Its construction is uncommon, and its articles pass by rapid transitions from the grave to the gay, from the mysteries of the atonement to positive trifling. There are one or two articles of educational value, but the work as a whole is not one adapted to profit Elementary Teachers.

QUESTIONS FOR MALE PUPIL TEACHERS,

AT THE END OF THE THIRD AND FOURTH YEARS.

I. — Mention the Class in your School which you have been accustomed to teach, and makes notes of such a lesson as you would give the children belonging to it, on one of the following subjects, viz:—

An Acorn.

Geography of the County in which your School is situated.

A Ship.

The Art of Printing.

2. Explain the use of the Ledger, Journal, and Waste Book; and what is meant by taking Stock.

2. In what time will an engine of 50 horse-power, moving a train of 90 tons, complete a journey of 40 miles? (Friction 8lbs per ton.)

4. How many cubit feet of water would be required per minute, to drive a water wheel of 4 effective horse-power, supposing the height of the fall to be 16 feet, and the modulus of the wheel ·68.

5. The handle of a windlass is 2 feet, the radius of the axle $2\frac{1}{2}$ in., and the power applied 80lbs; required the weight, which would be raised, were there no friction.

6. The angles which one straight line makes with another, are either two right angles, or are, together, equal to two right angles.

7. If a straight line be divided into any two parts, the rectangle contained by the whole and one of the parts is equal to the rectangle contained by the two parts, together with the square of the aforesaid part.

8 Construct a short sentence, containing a nominative absolute, and two nouns in apposition.

9. Explain the concord and government of each word in the sentence.

10. Define and derive the words topography, theology, calculate, fructify, obvious, somnambulist, and give a few words from Scribo, Domus, Gradus, and Verto.

11. Name the principal metres in the English language, with examples of each.

12 Name the British Possessions in the New World; draw a map of South America; and give a short account of the Cape of Good Hope.

13. Mention some of the most important events of English History in the 17th century.

14. Give instances of persons being punished for sin in the Old Testament.

15. Into what five parts would the Church Catechism naturally divide itself.

16. Give illustrations from Scripture that Baptism and the Supper of the Lord are generally necessary to salvation.

FOURTH YEAR.

1. Give an account of the organization of the school, stating what class you teach, and your method of giving it a lesson on the geography of your county.

2. If, from a room of 60 square yards, 12 yards 7 inches be partitioned off, what is the size of the apartment remaining.

3. A room, 18 feet by 20, and 10 feet high, is to be papered, with paper 18 inches wide, find the length of such paper requisite; making allowance for a door, 7 feet by 5, two windows, 5 feet by 4, and fireplace, 4 feet by 5.

4. Give the rule for finding the area of an equilateral triangle, and apply it, where one side, equals 20 chains.

5. What must be the length of a cow's tether (nearly), to allow her a quarter of an acre's grass. Describe Gunter's chain and Troughton's level.

6. Any two sides of a triangle are

together greater than the third side.

7. Prove that, if two straight lines cut each other, the angles which they make, at the cutting part, are together equal to four right angles.

8. Show that the difference of the squares of two unequal straight lines, is equal to the rectangle contained by their sum and difference

9. Explain the term mood, and its Etymology; show clearly how many moods their are in the English verb.

10. Explain the words Synonym and tautology; give one instance of the latter, and find exact synonym for omnipotent, regal, veracious, maternal, oblivious, mendacity; derive the words postscript, terraqueous, petrify and circumform.

11. Draw a map of the United States, with their principal rivers, mountains, and seaports. Give a short account of the circumstances under which they were colonized, and of the manner in which they became independent of Great Britain.

12. Where and what are Labuan, Quito, Chimborazo, Mauritius, Punjaub, Falkland Island?

13. State briefly what occurs to you about any one of them in connexion with the British Empire.

14. Mention the principal writers in the reign of George III., with the titles of any of their works.

Examination Papers of a Normal College.

JUNE, 1853.

MUSIC.

Section I.

1. Write down the names of the notes employed in vocal music, and also the position of each on a stave with a treble clef before it.

2. What is an interval, and in what way does it differ from a unison?

3. Explain the terms, Tonic, Mediant, Subdominiant, Leading Note; and give the reasons for their being so named.

Section II.

1. What is a tetrachord? How many are there in a major scale? Between what notes are they found?

2. Explain the diatonic scale, shewing the interval between each note, in the major and minor mode.

3. How many semitones are there in the following intervals:—A minor third, a major seventh, a minor second, a pluperfect fourth, an imperfect fifth, and a major sixth?

Section III.

1. Write out the table of rests, giving the name and value of each.

2. How is it possible to write a piece of music in any other key than Do.

3. Explain the formation of a minor scale from its relative major.

Section IV.

1. Explain the following terms:—Signature, Bar, Accent, Beat, Dal Segno, Fine, Accidental, Sf, Crescendo, Piu, Melody.

2. Write sort passages of music in the time indicated by C $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$

3. How do you determine in what key any given piece of music is written?

Section V.

1. What is transposition?

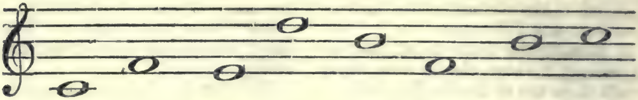
2. Write from memory a short passage of music, and shew how it can be transposed into any other key.

3. What is modulation, and how is it effected?

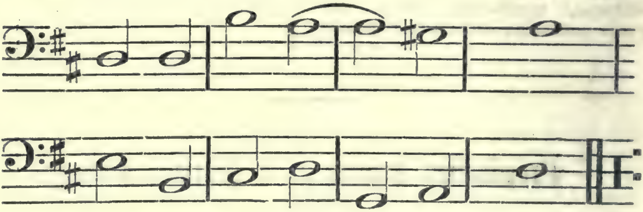
Section VI.

1. Write out the signatures of the keys of Do, Si flat, Mi, La, Re flat.

2. Write common chords to the following:



3. Harmonise the following passage:—



ENGLISH HISTORY.

1. Trace the descent of James I. from Henry VII. Mention the most eminent statemen and authors in James' reign.

2. Give an account of the origin of the Civil War; and of the circumstances under which the Restoration took place.

3. Sketch the character of James II. Give an account of the after-history of those children who survived him.

4. When, and under what conditions, did the Union between England and Scotland took place?

5. Trace briefly the causes which led to the French Revolution.

6. Explain in outline the mode of the Administration of Justice in England. What difference exists between the administration of Civil and Criminal Law?

7. Give exact dates for these events:—The destruction of the Armada—the treaties of Amiens, Aix-la-Chapelle, and Utrecht;—the Fire of London,—Abolition of the Slave Trade,—Burning of Moscow,—Commencement of the 7 years War,—Accession of George IV.

8. Explain fully the geographical and historical allusions of these lines:

"When he, from towery Malta's yielding isle,
"And the green waters of reluctant Nile,
"Th' apostate chief; from Misraim's subject shore
"To Acre's walls his trophied banners bore.

* * * * * * *

"What hero then triumphant Gaul dismayed,
"What arm repelled the victor renegade."
(Heber's Palestine.)

ST. MARK'S GOSPEL.

Section I.

1, Who was the writer of this Gospel? Give all you learn from the Bible of his history.

2. With which of the other Gospels is this most closely connected, and

what reasons have you for saying so?

3. State all that you can remember which is only to be found in St. Mark's Gospel.

Section II.

1. Select three passages from St. Mark's Gospel which you consider best adapted for giving a simple lesson to children: and state the one lesson you would draw from each.

2 Mention all the occasions recorded by St. Mark on which our Lord found fault with his disciples.

3. Enumerate the *places* which St. Mark records our Lord to have visited.

Section III.

Show how our Lord answered the Pharisees, explaining fully any difficulties which occur in connection with the answer given,—

1 When they asked him about giving tribute to Cæsar.

2. When they complained of his disciples for not fasting.

3. When they accused his disciples of breaking the tradition of the elders.

Section IV.

Explain the text.

1. (Mark xi. 13.) "And seeing a fig-tree afar off having leaves, he came, if haply he might find any thing thereon: and when he came to it, he found nothing but leaves; *for the time of figs was not yet.*"

2. (Mark ix. 1.) "Verily I say unto you, that there be some of them that stand here, which shall not taste of death, till they have seen the *kingdom of God come with power.*"

3. (Mark ix. 49.) "For every one shall be salted with fire, and every sacrifice shall be salted with salt."

Section V.

1. How does the account of Peter's denial, given by St. Mark, differ from that given in any other Gospel?—and how is it to be reconciled with it?

2. What was the chief object our Lord had in view in his conversation with the rich man? (Mark x. 17—22.) Describe briefly the plan on which he acted.

3. What passages would you quote from St. Mark's Gospel to prove the doctrines of the *Trinity*, and the *Final Judgment?*

Section VI.

1 Give a short account either of our Lord's stilling the tempest, (Mark iv. 35—41), or of the parable of the vineyard, (Mark xii. 1—12), in language suited to children; and the lessons to be drawn from it.

Section VII. *(Liturgy.)*

(Answer as many of the following as you can.

1 How many Creeds are there? Distinguish them, and account for the names by which they are commonly called.

2 Give some general account of the order of the subjects of petition in the Litany.

3. Write out Article XIII. (on works before Justification.) Explain it, and prove it from Scripture.

4. Give the names of the Apostolic Fathers, and some account of the writings certainly attributable to them, which have come down to us.

5. Give a general account of the origin of Gnosticism, state its peculiar features, and quote any passages from the writings of St. Paul which may fairly be supposed to refer to any of its errors.

ARITHMETIC & ALGEBRA.

SECTION I.

1. Reduce 12 leagues 2 miles 3 furlongs 10 yards 2 feet to inches, and find the number of minutes in a year.

2. State the rules for the multiplication and division of decimals, and prove them. Multiply and divide 34·00576 by ·0004723.

Section II.

1. Reduce $\cdot0\dot{4}\dot{5}$, $\cdot3\dot{4}$ and $2\cdot0\dot{4}\dot{2}$ to their equivalent vulgar fractions.

2. Find the fraction that 3s. $7\frac{1}{2}$d. is of £15. 5s. $6\frac{1}{2}$d., and reduce $3\frac{1}{2}$ yards to the decimal of 2 miles 3 furlongs 195 yards.

Section III.

1 Three persons can do a piece of work in 2, 3, and 6 days respectively: in what time can all working together do it?

2. Find the square roots of ·0000186624 and ·4

Section IV.

1. Find the amount of £10,000. in 5 years at 5 per cent. simple interest.

2. Divide £29. 7s. 6d. among 5 persons in the proportion of 1, 3, 5, 7, 9.

1. Shew that $(1 + x^2)(1 + y^2) = (1 - xy)^2 + (x + y)^2$ and find the square of $x + 1 + \dfrac{1}{x}$.

2. Find the greatest common measure of $2x^3 + 5x^2 + 5x + 3$ and $2x^3 + 3x^2 + 2x + 3$.

3, Simplify the expressions

$$\frac{\dfrac{1}{1-x} + \dfrac{2x}{1+2x^2}}{\dfrac{2x}{1-x^2} + \dfrac{6x}{1+2x^2}} \;\&\; \frac{1}{a+b} \times \frac{a^2-b^2}{a+3b} \times \frac{a^2-4b^2}{a+3b}$$

4. Solve the equations:

$$(a)\ 15x + \tfrac{1}{2}\left(3x - \frac{17-x}{4}\right) = 81$$

$$(b)\ \frac{x-a}{a} + \frac{x-b}{b} + \frac{x-c}{c} = 0$$

$$(c)\ \left.\begin{aligned} 15x - 29y &= 18 \\ 3x + 35y &= 126 \end{aligned}\right\}$$

$$(d)\ \sqrt{x+16}\,y = 2 + \sqrt{x}.$$

$$(e)\ \left.\begin{aligned} x^3 + y^3 &= 1001 \\ x + y &= 11 \end{aligned}\right\}$$

5. How may a debt of £4 11s. 6d. be paid out of nine half guineas and 6 half-crowns?

6. Find the middle term of the expansion of $(1 + 2x)^{12}$.

7. Prove the formula for the summation of a geometrical series.

SCHOOL MANAGEMENT.

Section I.

1. Write a brief history of simultaneous forms of instruction.

2 State fully the conditions requisite to make a lesson collective.

3. Describe the object, mode of using, and advantages of the "Gallery"; what evils are you to avoid, and what points in its discipline require most attention.

Section II.

1. Draw out a routine to exhibit how you could teach the following subjects to a school of eighty children, so that each child should be taught in each of them by yourself daily:—Reading, Writing and Arithmetic.

2. Describe the processes you should employ in teaching either of the following subjects:—

Reading,
Arithmetic,
Writing.

3. What methods have been devised to teach children to read? State the advantages and disadvantages of each.

Section III.

1. What is method? Describe one of the following methods, and give examples of its application:—

Induction,
Synthesis,
Analysis.

2. State four requisites to good teaching. Describe either of the following methods of communication:—

Interrogation,
Exposition.

3. What considerations shew the importance of the teacher's office, what qualifications does it require, and what are its characteristic dangers?

Section IV.

1. What are notes of lessons? Shew the difference between notes of information, outline notes, and full notes.

2. What mental powers are proposed to be cultivated by lessons on objects, natural history, and physical science, respectively.

4. Draw up outline notes on one of the following subjects:—

The cotton manufacture and its localities,
Mortar,
A leaf,
A bee,
The pendulum.

PAPERS FOR THE SCHOOLMASTER.

No. ~~29.~~ [30] ~~July~~ 1, 1853. [AUG.]

The Pleasures of the Schoolmaster.

The schoolmaster, such as we here consider him, is one able and earnest, with faith in his vocation, and not one of a class which feels only the toil and trouble of his work, withdrawing his eyes from its pleasures to its elevating influence. "He who is weary," writes the great Hesdes, "of his position or his work, who bears his duties like a weary load, to him is deemed the choicest blessing which God can impart,—the finding of pleasure in our daily work."

Granting that the schoolmaster's position, even in our own day, in the demands made upon him, and the consideration which he receives, has its unattractive and stern side,—nay, often entails hardship and discomfort; granting that thereby it often deters the young, and wears down the strong man; it has still its pleasures,—yea, its prerogative of pleasure, which no other position can lay claim to, at least in the same degree.

Even the first heedful glance at the high and elevating distinction of his calling, must inspire the schoolmaster and educator with pleasure. He is playing, upon the world's stage, a part rarely distinguished, and often humble and ill-paid. But, as upon the boards of a theatre, it is not always the most brilliantly dressed actor that fills the most really important part, but, on the contrary, one at first sight insignificant, may have the chief character to sustain,—that on which hinges the whole drama,—so in the great drama of life. The curtain rises: we see before us busy in confusion the statesman and the citizen, the judge and the churchman, the physician, the artist, the warrior. What bustle, what variety! Every one plays his part, high or low, with more or less brilliancy, in clearer or dimmer light. And the schoolmaster? We all but fail to find him in this throng of men. He stands in the back-ground of the stage intent upon the acting of his brother-men, who, but for him, would be playing an undistinguishable part, or else playing it indifferently. If no loud applause, nor clapping of hands, nor shower of gold rewards him; if he remains in his obscurity, waiting, it may be, with impatience his turn to be called forward;—still it was no other than he who trained, from small beginnings, the actors for their various parts, and no other have they to thank, apart from their own talents and the fortune of circumstance, if they play them with grace, dignity, or success.

Man is by nature nothing; but through the circumstance, relation, and condition in which he is placed, he may become everything. He is like a young sapling, which may become fruit-bearing or barren; may grow to a shady or to a branchless and leafless tree; may bear wholesome food or poison. What determines this doubtful growth? Education. What tends it, when it begins to shoot;—what waters the thirsty sprouts which else might die before their time? Education. What clears the weeds from round it, and prunes away the wild undergrowth? Education. What a noble calling, then, is that to which this great work is entrusted; which wakes the slumbering faculties from their sleep, and draws ability into activity; which gives to the inclinations of the growing man a right and fitting discretion, such as they must take if they are to become to their possessors and to others well-springs of pleasure and contentment, which bring the young citizen of human society into the way in which he must walk to become a freer, a more useful, and a happier man. What a great and elevating work, to form and fashion men, to prepare them for their calling amongst men, be it high or low, brilliant or simply useful.

And so the schoolmaster, more than many other workmen, is a benefactor to society, if he is what he should and shall be. The sphere, it is true, in which he immediately works, is small and circumscribed: but his indirect sphere of labour is continually widening. The future sphere of labour of each one of his pupils is, in a manner, his: and though neither his nor any human eye can embrace all the countless results which, rising out of a conscientious discharge of his duties, affect his pupils, and through them again reach other men and other grades, even to the remotest generation, —it is marked by the eye of the All-seeing, who at one glance comprehends all the links of that chain which joins cause to cause, and effect to effect. A stone, thrown into the sea, strikes a circle, —this circle a second, and that again another, and every new circle one farther, until the weak eye of man can no longer follow them as they spread, whilst perhaps a sharper sight than that of men is marking them long after the stone has come to rest in the bed of the ocean.

What is man without education, without instruction? Close our schools,—banish our schoolmaster,—burn all the helps to instruction, —let the generation of man grow up like the generation of the beast, —and what will be the sequel? The light of knowledge quenched, and none to tend it, none to use it; the genius of the artist, who lit his torch at that same light, faltering, and none round him with any sense for the creation of his art; the warrior a raging barbarian, with no knowledge but of the keenness of his sword, and no art but that of slaughter; the throne of the "powers that be" tottering, and no early-planted principle of religion in the hearts of the subjects to uphold it; the ties of family loosened, and no bond of education to bring them faster together; the great chain of human intercourse, which links family to family, class to class, province to province, broken, shattered into a thousand links; passion knowing no longer any bounds, vice no longer any check, or virtue any incitement; man falling from one step of the culture he had reached to another, still downwards, until he stands but one step raised above the beast.

It is well for the educator and the teacher to feel his own worth; well for him to be aware how important a link he is in the chain of human society; well for him to possess that honourable pride, which every man, in every position,—name him as you will,—ought to possess, if he is to be the man he should be; that pride which revolts at no position, looks down on none, regards none as useless, and if itself looked down upon by any, asks only,—"Am I less useful?" And what a fountain of pleasure opens before him, when he reflects upon the wide-spread influence in which his activity may result. All pass through his hand. He fashions the raw, shapeless material, and like a second Prometheus, breathes into it life and warmth. He gives to every nature under his influence its first impress; future condition and relations supply the second,—and if this last is often by far the more important, still it most frequently itself depends upon the first. Where, in any country, the balance of justice is unwavering; where the hand of the warrior is stainless of plunder, and his sword of unrighteous blood; where the preacher in the temple of God speaks not words only, but feeling; where the torch of knowledge sheds its light far, even in places where the darkness of night reigned; where the citizen is a more pious honourer of God,—a truer subject of his King,—a wiser and a more loving father,—a more tender husband,—a warmer friend,—a more honest and useful labourer; there, though it is not the work of the educator and teacher *alone*, his work is a manifest cause. Providence employs him as an agent in the development of its scheme,—the foundation of the greatest possible universal happiness. It was he who opened the fountain, which has swollen into a stream. It would be pride and arrogance if, looking at the stream, he were to say or think,—"It is I who have created this stream;" but, at the same time, it would be weakness or want of a just self-appreciation which could forget, that without his help the stream would never have been a stream, but, at best, a troubled brook full of soil and slime.

And what a pleasure to the schoolmaster to follow "in his mind's eye" the growing man from one step to another, or, better still, to bring him on his way with a guiding hand. He marks the germ, the bud, the flower, perhaps even the promise of fruit; he sees the changing transition from night to twilight, to morning, to daylight. He cannot fail, if nature has not utterly denied him insight, to notice the development of ability in his pupils, and he eagerly fixes upon every such development when noticed, trains and educates it for the future welfare of mankind. And when the raw material, upon which he has been working, grows into shape; and when he discloses beauties, before unseen, and now brought to light through his means, what an inexpressible delight to a heart which can feel! No Phidias ever contemplated with equal rapture the creation of his art, when the rude block of colourless and formless marble started to life under his plastic hand, when beneath his chisel one limb, one feature after another appeared, until at length it stood forth in its perfect stature and entire beauty,—the embodiment of a hero or a grace.

The father and the home-educator, who has a few minds only entrusted to him to train, knows few of those peculiar cases which, in the schoolmaster's position, arise from the number and the many-sided natures of his pupils; but he misses also the pleasures which result from this very variety. In his school he sees a troop of children brought from various grades, and destined to various positions. How many steps between the highest and the lowest! How many shades of difference in their natures! There opens before him the prospect of many a pleasant hour, in training each of these children to the measure of its abilities,—applying the spur bone,—holding a tight rein on the other; here breathing warmth into a cold nature,—there tempering a fierce fire, until it sinks to a safe and useful flame, and seeing his work grow and prosper under his heedful hand. The pleasure which he feels at the happy result of his labour compensates him for the sorrow with which he must sometimes behold the darkening of his hopes and wishes: and in most cases, he may have the consolation that it was not through his neglect that the plant withered.

Again, if the pleasures of friendship are amongst the choicest amenities of life, which without them would be but a desert, who is there that has better opportunity of forming friendships, than the instructor of youth. In manly years it is a hard thing in many an other position, to find a friend, who is more than a friend in name. Opposite and often conflicting interests, and, in general, the various relations of common life are, we might almost say, so many partition-walls which divide heart from heart. But the teacher of the young can, if he will and if he knows how to work, not only upon the understanding, but upon the heart of his children, make for himself true, warm friends. And friendship between such is so much the better worth because grounded, on the one side, upon gratitude, and on the other upon an early knowledge of character. Well for the teacher if he has a sense for all the pleasures we have spoken of, and truly unhappy if without! Well for him if he sacrifices to these pleasures, those others which intoxicate, and leave the heart empty; if he for their sake, of free-will renounces many an outwardly brilliant attraction and enticing solace. Well for him if, in the satisfaction of these pleasures, he forgets or feels with weaker force those many cases which, in his position, either his path of duty itself, or, as it may be, the wilfulness or the prejudices of others throw round him, and if in this satisfaction he patiently abides the time when these cases and these struggles shall be forgotten in his great reward. Patience: the dawn is nigh!—*From the German.*

Examination for Certificates.

In continuing our remarks on the Examination for Certificates, we come now to notice the first subject on schedule A—Religious Knowledge; this includes the following divisions: Scripture, Ecclesiastical History, Liturgy, Articles, and Catechism.

Scripture—No subject on the schedules should have so large a measure of attention as this, as it is of the highest value in itself, and one to which the Examiners attach a higher value than to any other. This is as it ought to be, and it is worth notice, that in this matter, Church of England Teachers have a decided advantage over those whose Examination papers do not include Scripture Knowledge. It may be assumed, in the case of Teachers, that for devotional purposes, the Scriptures are ready daily; this is valuable, and of course will tell in an examination; but it is evident, from the questions proposed, that a closer and more extensive reading is required. Not only should there be an intelligent perception of its most important details, but a vigorous and comprehensive grasp of each of the books as a whole, formed of an aggregation of parts. This should in fact be the first step, as till this is done, much of the force of the indivdual parts is last. Those who have not tried this method will be surprised, not so much at the clearness with which the details are then developed, as at the easy and effective manner, in which, by the associative faculty, their become linked together in their proper place and order. For this object we recommend the Cambridge Analyses of the Old and the New Testament. These little books are the result of much labour, and are characterized by great analytic power, and as great tact in reconstructing the analysed elements. In this way, have been brought into a small compass, many fine examples of analytic summaries, full of matter, yet perfectly transparent. From these the student cannot fail to profit, particularly in the historical books of Scripture.

To the New Testament must be brought an amount of attention proportionate to its higher importance. It is usual to require a particular, almost verbal, knowledge of one of the Gospels, and of the Acts of the Apostles. To answer the questions put, as may be seen by reference to the Examination Papers, requires not only a minute acquaintance with almost verbal accuracy in the text, but a thorough intelligence of its sense. To do this well, one or two chapters must be carefully gone through every week, so as to obtain a perfect mastery both of the text and its meaning. To assist in obtaining an insight into the meaning of the text, "Barnes' Notes" may be recommended as coming within the reach of teachers by their moderate price. The Epistles, more than any other part of the Sacred Writings, need to be comprehended in their general design. The history of the Writer should be known, and especially the peculiar condition and circumstances of the person or persons to whom sent. In reference to the Epistles, and the Prophetical Books, there must be acquired an ability to write off an analysis of contents, with the other particulars just named.

We repeat that too much attention cannot be paid to the subject of Scripture. It is very extensive, of first-rate importance, and the questions proposed in it, are those which tell most on the result. Whilst others subjects may claim some two or three hours in the week, this should have at least one a day. And this hour to be employed not in *mere* reading, but in *close* reading, coupled with written exercises; the exercises to embrace historical abstracts of persons and events, and analyses of the contents of the prophetical books and the epistles. The questions not always to be of your own setting, but varied with those set at examinations, or by some competent person. The value of these exercises will be increased tenfold, if your clergyman will kindly consent to give them the benefit of his correction ; and there are few ministers who would not feel a pleasure in doing so. We attach considerable importance to this last point; private study is very apt to engender bad intellectual habits, but this would be avoided by the quickening influence arising from the recollection, that what was done would be carefully examined by another.

The remaining subjects, included under the head Scripture Knowledge, usually go together and form a second paper.

Ecclesiastical History.—On this subject the Gospel Narrative and the Acts of the Apostles will supply information a little beyond the first half-century. After this the student will require a text-book on Church History, and as the questions hitherto given have been mostly on the Early History of the Church, Pinnock "Analysis of Ecclesiastical History may be recommended. This book comes down to the Council of Nice, A.D., 325, and is arranged in the same way as the Analyses of the Testaments, so as to give great prominence to the more important features. To general Church History, must be added a good knowledge of the Ecclesiastical History of our own country. This to an Elementary Teacher is even more valuable than the other, having so important a bearing on our national history. For this part of the subject we know no good book at so low a price as Pinnock's "Analysis of the Reformation, with the prior and subsequent History of the English Church."

Liturgy.—The requirements on this subject are, a knowledge of the history and structure of the Book of Common Prayer, the order of the several parts of its service, and an intelligent apprehension of the reasons assigned for such order. Of the order for Morning and Evening Prayer, there must be a particular knowledge, not only of the arrangement of the parts, but of the parts themselves. The following are cheap text-books:—Beren's "History of the Prayer Book"; this book contains only the history. Trollope's "Questions and Answers on the Liturgy"; containing the history and structure of the entire services, with expositions in the form indicated by the title. Wheatley's "Rational Illustration of Book of Common Prayer"; contains both history and structure, with exposition.

Articles.—Of these we need say little; they are required to be reproduced with perfect accuracy, and the various propositions in each supported by Scripture proof. We have heard objections made to this requirement, but must confess we see none ourselves; it seems perfectly reasonable to require that a Church Schoolmaster should know the doctrinal formulæ of the church in which he is a professed Teacher. Several of the Articles are worth learning, if it were only as examples of the concise and forcible language used by the Fathers of the Reformation. A separate work on the Articles can be had, written by the Rev. W. Trollope.

Catechism.—More is required in connexion with the Catechism than the Articles; the former coming constantly into use in the school, the latter but rarely. The examinee will be expected not only to show a perfect verbal knowledge of the text, but to give an exposition of its several answers, in form and language suited to school children, and supported by the warrantry of Holy Writ. For a good exposition and collection of apposite proofs, we recommend Dalton's "Christian Instruction"; which contains, besides the Catechism, a good sketch of the history and structure of the Book of Common Prayer, and the Articles with numerous proofs carefully assorted. There are, besides, several little tracts on the Catechism, published by the Christian Knowledge Society.

We would recommend, in reference to the subjects last named, the same course as on Scripture; no one will be found so able, or so likely, to aid you on these points as your minister. Again, on no class of subjects can you make your home studies and your school work so perfectly coincide. The more fully you are charged with this kind of knowledge, and the more accurate that knowledge becomes, the better will your school work be done. Each succeeding day will find it easier and more satisfactory to yourself, and more profitable to your scholars.

The second subject is that of *Reading*. This, to satisfy the Examiner, must not only be correct, but expressive and free from provincial accents and intonations. The first point needs no remark here, the other two do. To read expressively assumes the power of appreciating the precise meaning of the author, so as to be able to give the proper intonation, and to mark with great exactness the word or phrase requiring to be emphatically rendered. This is not so easy to be done as many imagine, and will require attention on the part of the student. To commence, he should read carefully the little work on the "Art of Reading," by the Irish School Society, and then apply his knowledge to a piece of blank verse, not passing rapidly from piece to piece, but thoroughly mastering the sense and proper rendering of one, make it familiar by frequent repetition; it will then be in part a model for a second piece. The student will find much benefit in paraphrasing, the lines beforehand, as by so doing he will more readily enter into the force of the sentences. On the matter of provincialisms, we wish to speak plainly, there has been in some teachers a little false pride—an unwillingness to submit to correction. We have met with cases in which, without excuse, dialectic peculiarities have seemed to be nourished, rather than otherwise, as in the face of example and friendly correction, *up* was still *oop*, and *lord* continued *lard*, &c. This is unwise, especially in rising teachers, and will, when they are cast into new districts, raise a suspicion of obtuseness in the minds of managers, and afford matter for mirth and ridicule to their children. These latter remarks apply particularly to those who live, or have lived, in rural districts; those in towns, even in the worst districts, are free from this defect in a great measure.

We strongly recommend on the subject of reading, that if possible, you put yourself under the correction of some one of cultivated mind and good ear. We can readily sympathize with that sensitiveness which a teacher has, and which makes him extremely unwilling to seek help from without, fearing lest he should damage his professional reputation. But if he is reading up for a certificate, he has nothing to fear on this ground. It is pretty generally understood now, that Government Certificates cannot be obtained without special preparation, and to seek such assistance from proper persons for such a purpose, would tend rather to raise a teacher's reputation than to lower it. It would be a proof in itself, that there was energy, and a disposition to employ it; and there are few that are able, who would not most willingly render to their teacher this little service.

Besides the works already named, we may add the following:—Nichols' "Help to the Study of the Scriptures." The "Acts," by the Rev. F. C. Cook, H.M., Inspector. Wilkinson's "Catechism of Church History," and "Liturgy and Church History"; for particulars of the latter see advertisement.

On Teaching Arithmetic.

RATIO AND PROPORTION.

Def. 1. What is meant by *ratio* is the relation which one quantity bears to another in respect of magnitude. By the term ratio we intend therefore to express the *multiple* or *part* which one is of the other. From this definition it will be seen that every fraction expresses a ratio, i.e., the relationship between the numerator and denominator, because it points out how many times one is contained in the other. The ratio between 4 and 3 is usually written 4 : 3, but it may also be expressed by the fraction $\frac{4}{3}$.

Def. 2. By *proportion* is meant *an equality of ratios*. Since we know that $\frac{1}{2} = \frac{2}{4}$, the ratio between 1 and 2 is the same as the ratio between 2 and 4. That equality may be thus written, 1 : 2 = 2 : 4 There is said to be a proportion among these four numbers, taken in the order, 1, 2, 2, 4, because the ratio, or relation between the former two, is equal to the ratio betweenthe latter two. Similarly, 2, 3, 6, 9, are *proportionals*, because the ratio 2 : 3 is equal to that between 6 : 9 as we at once see by converting the ratios into the fractions $\frac{2}{3}$ and $\frac{6}{9}$.

Rule of Proportion, or Rule of Three.—In preceding articles on Arithmetic, we have shewn that all examples under this rule may be worked with a simple knowledge of multiplication and division. They may also be worked as examples of proportion; this will be seen in the following instance:—

Ex. 1. *If a labourer can earn* 2*s. when wheat is* 8*s. a bushel, what ought he to earn when wheat is at* 6*s. a bushel?*

There will clearly subsist the same ratio between what he earns, and the prices of the wheat, i.e., the answer will be to 2s. as 6s. is to 8s.; or thus—

$$\text{Answer} : 2\text{s.} = 6\text{s.} : 8\text{s.}$$

Or, expressing the ratio as fractions, $\frac{\text{Ans.}}{2} = \frac{6}{8}$ ∴

Multiplying both fractions by 2, we have Answer, $= \frac{6\times 2}{8} = \frac{12\text{s.}}{8} =$. 1s 6d.

Ex. 2. *If* 4 *horses in* 30 *days consume* 25 *bushels of oats, in how many days will* 12 *horses consume* 50 *bushels?* There will manifestly be a proportion between the oats consumed, and the horses multiplied by the days in each case (because 4 times 20 horses in one day will consume the same amount as 4 horses in 20 days.) The proportion between the cause and effect will therefore be expressed as follows:

$$\overset{d}{\text{Answer,}} \times \overset{h}{12} : \overset{d}{4} \times \overset{h}{30} = \overset{b}{50} : \overset{b}{25}, \text{ or } \frac{\text{Ans.}\times 12}{4\times 30} = \frac{50}{25} = 2 \text{ days.}$$

Multiply both by 120, Ans. × 12 = 240 days,

And dividing both by 12, we have Ans. = 20 days.

Ex. 3. The second example may be worked after the pattern of the first, by making two sums of it. Thus omitting the fact that the number of bushels is altered, we have the following proportion, taking notice that the same corn will support *more* horses in *fewer* days.

$$\text{1st Answer,} : \overset{d}{30} = \overset{h}{4} : \overset{h}{12}.$$

$$\text{Therefore 1st Answer,} = \frac{4\times 30}{12} = 10 \text{ days.}$$

i.e. 12 horses will consume 25 bushels in 10 days, but we are required to find in how many days will 12 horses consume 50 bushels?

$$\text{Answer,} : \overset{h}{10} = \overset{b}{50} : \overset{b}{25}$$

$$\text{Or } \frac{\text{Ans.}}{10} = \frac{50}{25} = 2$$

Therefore the Answer, = 2 × 10, or 20 days.

Because three terms only of the proportion are given in the question, the rule is called *the Rule of Three*.

Amusements in Numbers.

Children, especially boys, are generally found to be very fond of Arithmetic if they are taught to understand the principles of its operations. Mental Arithmetic should embrace a two-fold object; one should be to practise the scholar in rapid calculation, the other to shew to him certain properties of numbers, some of which admit of easy explanation, which enable him to simplify calculations, or to produce unexpected results.

Rule I. The knowledge of the following Algebraic result will be of assistance to the mental calculator, $x^2-a^2=(x-a)\times(x+a)$ or the difference of the squares of two quantities equals the product of their sum and difference. Ex. Let it be required mentally to find the difference between the squares of 29 and 28. The ordinary method would be to find the square of 29 which is 841, and then the square of 28 which is 784. The difference between 841 and 794 gives us 57.

By the other method $29^2-28^2=(29-28)\times(29+28)=1\times(29+28)=57$, a result therefore obtained by simply adding the original quantities together.

Rule II. Any arithmetician may discover that every number whatever, when divided by 9, will leave the same remainder as the sum of the digits of which it is composed, when divided by 9, leaves. From this it will follow that if any number is divisible by 9, without remainder, the sum of its digits will be so divisible. The following process illustrates the rule. Take 3285 :—

$$\text{Now, } \frac{3285}{9} = \frac{3000}{9} + \frac{200}{9} + \frac{80}{9} + \frac{5}{9}$$

$$= 3 \times \frac{1000}{9} + 2 \times \frac{100}{9} + 8 \times \frac{10}{9} + \frac{5}{9}$$

$$= 3\,(111 + \tfrac{1}{9}) + 2\,(11 + \tfrac{1}{9}) + 8\,(1 + \tfrac{1}{9}) + \tfrac{5}{9}$$

$$= 333 + \tfrac{3}{9} + 22 + \tfrac{2}{9} + 8 + \tfrac{8}{9} + \tfrac{5}{9}$$

$$= 333 + 22 + 8 + \frac{3+2+8+5}{9}.$$

Hence the quantity is only divisible by 9, if the sum of its digits is.

A Master acquainted with this peculiar property of 9 may give to a boy any number that is divisible by 9, and asking him to multiply it secretly by any number, and then after omitting one of the figures in the result, to give him the remainder in any order he choses. If these figures be then added and divided by 9, the missing figure will easily be detected. Ex. Take 68886 which is divisible by 9. Suppose a boy to multiply it by 7, which gives 482202, and then to keep back the 8. Add the remaining digits and you obtain $4+2+2+2=10$. The result shews that 8 is the suppressed figure because it is wanted to make 10 divisible by 9.

Any other multiplier would do as well 7.

Rule II. A facility in working examples in Mental Arithmetic is obtained by remembering that to add a cypher to any number, or to multiply that number by 10, produces the same results. From this circumstance it follows that instead of multiplying any given number by 5, we have nothing to do but to divide by 2 and to add 0 to the product; thus—

$$\begin{array}{r} 684 \\ 5 \\ \hline 3420 \end{array} \quad \text{or} \quad \begin{array}{r} 2)684 \\ \hline 423(0) \end{array}$$

Similarly, if it is required of us to multiply a given number by 25, since this multiplier is a fourth part of 100, we have simply to divide by 4 and then to add two cyphers to the result. Let a child understand this, then if he can in his mind divide by 4, he can multiply by 25. Thus, to multiply 88 by 25, he sees at once that the result will be 2,200, for

$$\begin{array}{r} 88 \\ 25 \\ \hline 440 \\ 176 \\ \hline 2200 \end{array} \quad \text{or,} \quad \begin{array}{r} 4(88 \\ \hline 22(00) \end{array}$$

Notes of Lessons.

LUKE XVIII. 10—15.

I. Description of the two characters.

II. An analysis of their feelings and prayers.

III. The leading lesson to be enforced.

Begin by describing the Temple, especially the courts of the Jews and Gentiles.

1. Two men are seen inside. The one a *Pharisee*—a formalist in religion—a strickler for its external observances, but a stranger to its inward power—fonder of its traditions and ceremonies than to the weightier matter of personal and vital piety. The other was a *Publican*—a despised officer among the Jews—who having a bad name given to them by public consent, seem to become what others thought them. This man was an exception, or else he was a penitent.

2. They enter the temple, the Pharisee isolating himself and refusing sympathy with another lest he should suffer pollution from the Publican. The magnificence of the Temple should have filled him with humility, but it fills him instead with a proud sense of his privileges, and instead of *praying* he is enumerating all his proofs of superiority. There is here no confession of a single sin, no petition for a single grace. All is self-exaltation, self-congratulation, self-delusion, to himself. He does indeed thank God, but for things which bring credit to himself, and after enumerating a long list, it seems just then as if his eye falls upon the poor Public an standing it may be (if he were a Gentile) in the lower court divided from the Jews' court by those splendid pillars and that middle wall of partition, and so he winds up his vaunted catalogue with *him*, and as the climax of his self-congratulations—he thanks God that he is not even as yon Publican!

But how different were the feelings of the Publican! He stands afar off also from the other, but for a motive the exactly opposite, and lifts not up his eyes to Heaven. A sense of his sinfulness and of God's holiness, in whose presence he was now emphatically, makes him feel to be the chief of sinners. His only plea is mercy. His prayer contains the two great elements which that of the other does not, *confession* and *faith*. He confesses himself to be a sinner, and believes that with God there is mercy.

3. The great lesson to be learnt is humility. Read verse 14. Humbling himself not in words, but in reality of feeling, he went home *justified*, and therefore exalted to the favour and love of God. Call for the special exhortations to humility. David says, "God lifteth up those that be bowed down." James says, "He resisteth the proud, but giveth grace unto the humble." See also Peter iv. 5—6.

Educational Intelligence.

Meeting of Metropolitan Teachers at Mansion House.—We have been favoured with the sight of a letter from one of the Metropolitan Masters to a friend in the country, and though intended only as a private communication, we found means to obtain a copy for publication, as being likely to prove equally, if not more interesting, than a more formal paragraph.

"I suppose you have heard of our entertainment at the Mansion House, on June 30th. It was a most interesting affair; about two thousand were present, male and female teachers of the various metropolitan schools, together with a fair sprinkling of school officers, and friends of education. We met at six, and having shaken hands with the Lord Mayor, and bowed to the Lady Mayoress, we were ushered into the interior, which was thrown completely open to us. The Egyptian Hall was decorated with diagrams of every description, and four of the other rooms filled with various specimens of materials collected from the depots of the Educational Societies, the shops of booksellers, &c., and other sources. Tea and coffee were provided for us, and at ten o'clock, for those who wished it, sandwiches, wine, &c., these were served in an ante-room. These matters of course added to our comfort, but the chief source of pleasure was supplied by the opportunity of four hours conversation with teachers of every class. Upon the whole, the company was *very* respectable, rather a motley group for size and shape, and equally varied in dress, but the black predominated, and the white cravat was profuse. A military band played in the lobby, and the company was cheered besides, by the presence of many of the great educationalists of the metropolis. The Lord Mayor made himself very familiar with us, keeping up, in the various rooms, a constant stir by conversation, and occasional recognitions of some visitor of note. At the close of the evening we surrounded the Chief Magistrate, and gave him a vote of thanks, which he replied to in a neat speech. This was followed by three times three in fine style, followed by the National Anthem. Thus ended one of the most interesting meetings metropolitan teachers have ever been invited to attend."

The Church of England Schoolmasters' and Schoolmistresses' Mutual Assurance Society.—Established, 11th May, 1849.—The Fourth Annual General Meeting of Honorary and Assured Members of this truly useful and promising Society, was held at the office, 25, Bridge Street, Westminster, on Wednesday, 22nd June. Philip Cazenove, Esquire, one of the Treasurers of the Society, in the Chair.

The notice convening the Meeting having been read, the Chairman submitted the audited accounts, and the Secretary read the Directors' Report of the proceedings of the Society for the past year, upon which, several members spoke, expressing the great satisfaction they felt upon seeing the improved state of the Society in all respects.

FOURTH ANNUAL REPORT.—In presenting the Fourth Annual Report of the Church of England Schoolmasters' and Schoolmistresses' Mutual Assurance Society, the Directors trust that the following statement will prove that the Society is realizing the objects for which it was established.

The numbers of Policies granted and made effective from the last Saturday in April, 1852, to the last Saturday in April, 1853, is as follows, viz. :—

	£
84 Assurances upon Life, to the amount of	6,675
36 Endowment Assurances..........	2,030
	8,705

and 40 for Sick Provision and Annuities in Old Age
Total, 60 New Assurances completed, producing an
Annual Income of £393 9 0

The total number of Assurances in force on the 30th of April (the date of the balance sheet), was 465, upon which the prospective Annual Income is £1,190 19s.

Seventeen Assurances have been granted since the 30th of April, of which number, 12 have been made effective, and 5 are in course of completion, making 482 Assurances, to the amount of £27,015.

This result is a cause for great congratulation and encouragement; but your Directors earnestly recommend, and are led to hope, that the Assured Members will see the necessity of increased and renewed exertions, amongst Schoolteachers and Scripture Readers, in all parts of the country, to induce their fellow-labourers in the work of Education to effect Assurances in this Society to increase the amount of their own Assurance when practicable; to enable their wives and children to become members, and especially to urge upon the young Schoolmaster and Schoolmistress the importance of making Assurances in early life. By efforts of this kind, the number of Assurances and the Income of the Society would very soon be doubled, and the assured will have the gratification of knowing that their exertions have made their own Assurances more valuable, and that they have thus become instrumental in leading others to participate in the like advantages with themselves.

It has been thought advisable to close the Financial Year of the Society on the last Saturday in April in each year, instead of the last day of May, as heretofore. This has been rendered necessary in order that an accurate account of the proceedings of the Society may be made to the Government, as directed in the Act of Parliament, under which the Society is enrolled, and in order that this account may be in accordance with the books, which are made up to the quarterly receiving day, in April

The accounts, therefore, which are now laid before you, are only for eleven months, viz : from the date of the Balance Sheet presented to the members last year, to the 30th April, 1853.

It will be seen that the Balance Sheet shows the gradual increase of the Society's Income, and after paying all expenses, attendant on the formation of the Society, with £295 13s. 8d. for Assurances, paid as they have become due, and all management expenses up to the close of the Fourth Year, the Directors have been enabled to invest £400, in addition to £500 invested last year, to which has been added £250 more within the last month, with a Prospective

Annual Income of £1,231 18s. 8d., independent of all future business, the Society may transact or what may be received by way of Donations and Subscriptions.

The above statement shows that the Directors have invested a much larger sum during the past 12 months than they were enabled to do during the three previous years of the Society's operations, which gratifying result has been effected through the increased amount of business transacted during the past year, and by the continuous exertions of your Directors to limit the management expenses of the Society as much as possible, consistent with its efficient administration.

THE HONORARY FUND.—The Directors in their last Report strongly urged upon the Members the necessity of increasing this Fund, and it is gratifying to them to be able to report that a large number of Assured Members readily offered their services, and have by their exertions raised the sum of £70 in aid of this Fund, during the last eleven months.

The Directors feel that it would show a want of duty on their part were they not to record their grateful thanks to those Honorary Members who have so kindly contributed to this Fund, but they would again most strongly urge the necessity of renewed exertions to obtain Subscriptions and Donations; and they confidently hope that the friends of this good cause, who have it in their power, will subscribe liberally to the Funds of the Society.

In conclusion, your Directors feel convinced that they may assure their brother members of their convictions, that the Society is steadily progressing towards a position of great and permament usefulness, and while expressing their thankfulness to Divine Providence for, that only one of their number has been removed by death during the past year, they earnestly call upon all to use their best exertions in extending the operations of the Society, among the classes for whose benefit it was established.

RULES, &C. OF THE SOUTH-DEVON AND EAST CORNWALL SCHOOLMASTERS' ASSOCIATION.—President, Mr. Good; Vice-President, Mr. Evens; Treasurer, Mr. Evers; Secretaries, Messrs. Casse and Chappel.

1st.—That this Association be called the "South Devon and East Cornwall Schoolmasters' Association.

2nd.—That all Teachers in Protestant Day-schools residing in South-Devon and East Cornwall, be eligible to become members, and that the Meetings of the association be held at Plymouth.

3rd.—That the objects of the Association be the mutual friendly recognition of Day-School Teachers, together with their mental improvement.

4th.—There shall be a General Meeting on the first Saturday in every month, to commence at half-past Two o'Clock, p.m., when a paper shall be read by one of the members on any subject connected with education, such paper not to occupy more than forty minutes, after which there shall be a discussion upon the subject thus introduced, which shall close at Five o'Clock. An interval of one hour and a half shall be allowed for the Tea, after which some subject shall be discussed which shall have been previously chosen and announced. The Meeting to close at half-past Eight, p.m., unless desired by a majority present, present to continue beyond that honr.

5th.—That classes be established for the study of the Mathematics, Languages, or any branch of English Literature.

6th.—That a Library, also, be established for the use of the Members of the Association, and that a contribution of sixpence per quarter be charged to those who may avail themselves of the same; also that Pupil Teachers in the various

Schools, be allowed the privilege of using the Books, upon the payment of three-pence per quarter.

7th.—That each Member contribute the sum of Two Shillings per quarter,—to be paid in advance,—to meet the current expenses; also, that no extra expenses be allowed without the consent of the Association.

8th.—That any Teacher desirous of becoming a Member of the Association shall be proposed at a General Monthly Meeting, and accepted at the following, a majority being favourable to the same.

9th.—That Teachers residing at a distance, and others who may not be able to attend regularly the Monthly Meetings, may become Honorary Members;—also that any Teacher may introduce a friend at the Monthly Meetings on the same terms as a Honorary Member.

10th.—That the affairs of the Association be conducted by a President, two Secretaries, and Treasurer, (to be chosen Annually), and a Committee, consisting of the Masters resident in the towns of Plymouth, Stonehouse, and Devonport; also that theLibrary be under the control of the Committee on behalf of the Association.

11th.—That as the Members of the Association will belong to various sections of the Protestant Church, no Political or Controversial Theological discussions shall be allowed during the Meetings of the Association.

12th.—That all the Meetings shall commence and close with singing and prayer.

13th.—That no alterations or additions to these Rules shall be allowed, unless agreed to by a majority of the Members at a usual Monthly Meeting, and only then if notice shall have been given of the proposed alterations or additions at the Monthly Meeting preceding.

Presentation.—On Thursday, the 23rd ult., the members of the Oswestry Sunday and National Schools presented the Rev. Francis King, M.A., Senior Curate, with a beautiful Time-piece, value £7 10s., as a testimonial of their sincere esteem for the very kind and lively interest he has taken in the schools. The bell of the time-piece contained the following inscription:—"Presented to the Rev. Francis King, M.A., by the members of the Oswestry Sunday and Daily Schools. June 23, 1853. Mizpeh, Genesis xxxi. 49."

N.B.—The parishioners of the rev. gentleman had presented him, on the previous Saturday, with a chaste and elegant silver inkstand, value 20 guineas, together with a purse containing 100 sovereigns.

Derby and Derbyshire Church of England Schoolmasters' Association.—A *preliminary meeting* of teachers, interested in the formation of an Association for Derbyshire, was held on the 4th of June, at the Curzon-street School Room, Derby, and was attended by many masters, not only from the immediate neighbourhood of Derby, but from a considerable distance. The first *general meeting* was held in the same school-room, on the 2nd inst., and was numerously attended. The chief object of this Association is, the mutual improvement of its members, and to attain this object, it proposes to hold quarterly meetings, at which lectures will be given, and educational topics discussed, &c. Geo. Turner, Corresponding Secretary.

Brailsford, Derby, July 18, 1853.

NOTICES OF BOOKS.

The First Book of Geography.--Hugo Reid.—Grant and Griffith.—The supply of school literature bids fair to keep up with the rapid progress of elementary education, and it is pleasing to notice the efforts made to write up modern school-books to the improved notions on Method. In the book before us, although Mr. Reid has adopted a sound principle, he yet feels it necessary to offer some kind of apology for "what may appear, at first, a rambling method." And we have little doubt, but in many schools there may yet exist grave objections to any other "opening up," of the interesting subject of geography, than the old form, "The world is round like an orange," followed by a sufficient string of definitions. To Teachers disposed to do as little for their pupils as possible, these objections are perfectly valid, as a book on Geography constructed on a proper method connot be used by the teacher with the facility of a "Mavor's Spelling," We think Mr. Reid has produced a good "First Book," one characterized by great simplicity and skilful arrangement. For what are called Preparatory Schools, we do not remember to have seen one more suitable, or better worth commendation.

The English School Primer.—G. White and T. Crampton.—Houlston and Co. This little Reading Book has several recommendations. Its compilers are men of experience in elementary schools; one of them, Mr. White, has long been known, as one of the most intelligent and successful Teachers in the Metropolis. We think the principal of *selection* adopted, not only correct but highly important; the authors say, "In selecting our subjects, we have been anxious to avoid adding the difficulties of *thought* to the difficulties of acquiring the ready use of its written signs." Again the lessons are strictly *progressive*,on this point the following explanation is given. "The early ones in particular are short, and formed of words which seldom exceed three letters, arranged with a view to exemplify most of the simple sounds of the language. Further in the book, the lessons are lengthened; difficulties are introduced, but yet sparingly, and these are frequently repeated, that they may be effectually mastered." The principles thus clearly enunciated, are as satisfactorily worked out, and the result is, one of the best sets of "Easy Reading Lessons" we have seen.

The same set of Reading Lessons is printed on folded cards, In this device we see a reproduction of what we remember to have seen in use in National Schools many years ago. The object in this case is economy, so that each of the sixteen sets of cards may be used, where otherwise the entire book would be in use. The idea is a good one in connexion with a "Primer," as little children when learning to read, are much more ready in "using up" the book than the contents of it.

We are aware of the difficulty there is in introducing a new school book, and especially a new reading book, but we think in this case it will not be so insuperable as it sometimes is.. The complaint is almost universal among teachers of Elementary schools, that whilst there is an ample supply of reading books for the advanced classes, there is absolutely none for those just commencing to read; to a great extent this complaint is well founded.

We have great confidence that this "School Primer" will be found very effectively to supply in Elementary schools a want long felt and generally expressed. It has in both its forms our most hearty commendations.

The British Controversialist.—First Half-Volume, 1852.—*Houlston and Co.* —This title indicates only in part the character of this valuable periodical, for besides "deliberate discussion on Religion, Philosophy, History, Education &c.,"

there is always a Leading Article, being one of a series, on some important Educational subject. In this way since the commencement, have been given distinct courses on the Art of Reasoning, European Philosophy, and Rhetoric, "in which the knowlege hitherto confined to high-priced and bulky volumes is popularized, and brought within the reach of all." Some of these leading Articles are models of excellency, in which the rays of European intelligence are concentrated, and thrown in great brilliancy on one point. There are also valuable exercises in Grammar, Mathematics, and Logic From this brief explanation of the character of this work it will be seen, that it is specially devoted to the service of those who are pursuing the ardous labour of self-education and mental culture. The "British Controversialist" belongs decidedly to the first class of cheap serials, it is full of intelligence and instruction, and one in every way worthy of the extensive patronage it receives.

Correspondence.

Sir,—Although a very delicate subject to treat of, yet I will venture to suggest to your consideration a difficulty occurring, I fear, to many a teacher whose only desire is to discharge his duty as a steward of one of the manifold gifts of God, and at the same time to educate that little flock of which he is indeed the overseer. While a teacher is laying himself out as I have premised, it is no uncommon thing for him to be received, when he makes his appearance in the streets of the town or village with derisive or insulting shouts, and most commonly, not from any of his own children, but from some who only know him by sight. This I believe to be considered by us as one of the most trying and galling of all those trying and galling things with which a teacher is, alas! but too well acquainted.

Can you, sir, or any of your correspondents point out if there be any remedy for this evil, for if I may be allowed to judge from my own feelings and emotions under its infliction, I must say that it is an evil calculated to prove destructive of that hopeful, loving, patient spirit which should predominate in every deed and word, in every look and thought of an enlightened Christian Schoolmaster.

T. C.

Sir,—In answer to your correspondent W. B. K., on the utility of "Booking sums," I would say it is my opinion that for children to book sums after working them on their slates is merely a waste of time, for though they certainly improve in forming their figures, yet part of the time which ought to be devoted to the study of arithmetic is wasted in entering into a book sums they have previously worked on a slate. But as I admire the system of "Booking sums," I would recommend that the elder scholars be compelled (of course after they are made thoroughly acquainted with the rule or nature of the sums they are about to do) to work them at once in a book, for by this means they would soon acquire, not only the habit of forming their figures properly, but also of working their sums correctly, the advantages of which I am sure must be obvious to all.

G. J. E.

Sir,—Would some of your experienced correspondents supply satisfactory replies to the following queries:—

1st. "A series of subjects on which pupil-teachers of the third year may be exercised to write notes."

2nd. "A series of essays connected with the art of teaching, to a pupil-teacher in his fifth year."

Though the replies might occupy a considerable portion of space in your limited but valuable Papers, I believe you will agree with me that the practical value of judicious replies would entitle them to insertion.

A YOUNG TEACHER.

Sir,—J. H. would feel obliged to the Editor of the "Papers for the Schoolmaster" if he would inform him whether there is a work that treats upon the Character of Scotchmen, and in what respects Scotland is benefited by its union with England.

[We may safely leave J. H. to the attention of our correspondents north of the Tweed.]

Sir,—Would any of your correspondents, through the medium of your valuable Papers, inform me (with an example) what is meant by the "Organization of a School."

I have been induced to write, at the suggestion of a few pupil-teachers, who want the subject clearly defined and explained to them. This subject is one of the most important to all teachers, therefore, you would greatly oblige me and some of my brother pupil-teachers if you of any other would explain the term.

A. D.

[To our correspondents who express their perfect satisfaction at the course we have pursued, we offer our best thanks, though we do not publish their communications. Our path has hitherto been peaceful, and we shall endeavour to keep it so by occupying common ground; and avoiding every species of partizanship, shall seek in our own sphere and according to our own ability, to diffuse amongst those engaged in Elementary Education, a spirit of common brotherhood.

Besides the numerous communications referred to, we have satisfactory proof in our large and increasing circulation, that our "Papers" have given pretty general satisfaction. We are therefore encouraged to pursue our present course, always happy to receive the suggestions of our subscribers, but at the same time claiming for ourselves the right of judging whether the suggestions of one, would be for the advantage of the many. Thus one correspondent offers to answer an examination paper, and another sends neatly worked solutions to an algebra paper. To both parties we are under obligations, but with our limited space, necessity alone, without other reasons, compels us to restrict our pages to such answers as involve matter not found in ordinary text-books. We see, and judging from our editorial correspondence, our subscribers do to, a great difference between what is proper to the student, and what to the practical teacher. It is to the information proper to the latter, that we are especially anxious to lead the attention of Schoolmasters and Mistresses, and shall therefore welcome answers to any papers on School Management, Organization, and Discipline.]

Examination Paper for Pupil Teachers.

FIFTH YEAR.

1. Write an essay on the religious instruction to be given in a School.

2. If two circles cut one another they shall not have the same centre.

3. Upon a given straight line to describe a segment of a circle which shall contain an angle equal to a given rectilineal angle.

4. Explain the theory of Mercator's projection.

5. Sketch a map of the world shewing the English Possessions. State what you know respecting their productions, trade, and government.

6. Paraphrase the following into modern prose, and parse the words in italics.

Ay me! how *many* perils *do* enfold
The righteous man, to make him *daily* fall,
Were not that heavenly grace and virtue *him uphold.*
The *love* of truth is *firm,* his care *continual,*
So soft as he through his own foolish pride,
Or weakness is to sinfull bands made *thrall.*

7. Make a parsing praxis, and select an example of each part of speech from the above passage.

8. Give the meaning of the following words, and make sentences embodying each word:—Diverting, clumps, extravagant, gondola, summit, scene, &c.

10. Give an account of the progress of public liberty.

11. State what you know respecting Wellington, William Pitt, and Wilkes.

12. Give the principal events from the reign of George I. to Victoria, with dates.

13. Name the prophets that lived between B. C. 800 and 750.

14. Relate what you know respecting Haggai, and his prophecy.

15. What prophecies relative to our Saviour were uttered by the minor Prophets?

16. Give reasons for the use of a form of prayer.

Examination Papers of a Normal College.

JUNE, 1853.

HIGHER MATHEMATICS.

1. Establish the formulæ

$$\cos A = \pm \tfrac{1}{2}\sqrt{1+\sin 2A} \pm \tfrac{1}{2}\sqrt{1-\sin 2A}$$

$$\sin A = \pm \tfrac{1}{2}\sqrt{1+\sin 2A} \pm \tfrac{1}{2}\sqrt{1-\sin 2A}$$

Determine the signs to be used when A is between 225° and 315°. Also, find $\cos 549°$.

2. What is meant by the Solution of Triangles? Explain the 'ambiguous case,' shewing clearly wherein the ambiguity consists.

3. Sum the series

$1 + x \cos\theta + x^2 \cos 2\theta + x^3 \cos 3\theta +$ &c. to n terms and test the result by putting $\theta = 0$.

4. Express the cosine of an angle of a spherical triangle in terms of the cosines and sines of the sides. If two sides and the included angle be given, adapt the preceding formula to logarithmic computation for finding the third side.

5. Find the area of a Spherical Triangle, and prove Legendre's Theorem.

6. Shew how to find the centre of gravity of a number of heavy particles in one plane.

7. If p, q, r, be the distance of three particles whose weights are P, Q, R, from their common centre of gravity, and α, β, λ be the angles contained by the lines $p, q;\ q, r;\ r, p;$ respectively: determine the ratios P : Q : R.

8. Find the ratio of P : W in the screw.

1. Without friction.
2. With friction.

Explain the principle of Hunter's screw.

9. Shew that if s be the space described from rest, in the time t, by a particle moving under the action of a uniform accelerating force f, $s = \frac{1}{2} f t^2$. Also find the velocity in terms of s.

A body falls from rest under the action of gravity, find the space described in 10 seconds, and in the 10th second.

10. Shew that the path of a projectile is a parabola. Find the time of flight, and the range of the projectile on the horizontal plane through the point of projection.

11. If a right cone is cut by a plane which is parallel to a line in its surface, and perpendicular to the plane containing that line and the axis, the section is a parabola.

12. In the ellipse, the rectangle under the abscissæ of any diameter is to the square of the semi-ordinate, as the square of the diameter to the square of the conjugate.

GEOGRAPHY AND GENERAL PHYSICS.

Section 1.

1. Draw a Map of Ireland.
2. Draw a Map of Great Britain.
3. Draw a Map of Great Britain and Ireland.

Section II.

1. Give some account of the Geography of Italy.
2. Give some account of the Geography of Germany.

3. Give some account of the Geography of Austria.

Section III.

1. What is the General Theory of Winds? Distinguish between variable Winds, the Trade Winds and Monsoons; and show by examples how winds influence the distribution of temperature.

2. What are the external characters of earth and sea: what are their respective influences on climate? Give tabular illustrations and show what is the peculiar function of the atmosphere with respect to climate.

3. Give some account of the General Theory of Rain: of Tropical, of Monsoon, and variable Rains, and explain and illustrate by what causes the general laws regarding rains are modified.

Section IV.

1. By what experiments can expansion by heat, in liquids and solids be illustrated? Of solids, which expands the most and which the least by heat? Do liquids and gases follow the same rule of specific expansibility? Why does the sailor wet his finger to determine the quarter of the wind?

2. Enumerate the various kinds of lenses, and explain the philosophy of a pair of spectacles. Explain also the principle of the Parabolic reflectors of heat.

Section V.

1. Explain the phenomenon of a freezing mixture. Give an instance.

2. What are the properties of Hydrogen? Explain with symbols, the process by which it may be produced.

3. Express by chemical symbols the following substances. olefiant gas: chloric acid; table-salt; ammonia; chlorate of potash, and alcohol.

Section VI.

1. Explain the process of a burning candle.

2. Explain the principle of the blow-pipe.

3. Define and give instances of nitrogenous and non-nitrogenous substances in food. What part do each perform in animal support? What is *diastase* and *dectrine?*

GEOMETRY AND MENSURATION.

Section I.

1. Define *a rectangle*, *a sector of a circle*, and *extreme and mean ratio.*

2. If a square described on one of the sides of a triangle be equal to the squares described on the other two sides of it; the angle contained by these two sides is a right angle.

3. Divide a given straight line into two parts, so that the rectangle contained by the whole and one of the parts shall be equal to the square of the other part. Shew that in Euclid's figure, four other lines, besides the given line, are divided in the required manner.

Section II.

1. The opposite angles of any quadrilateral figure described in a circle, are together equal to two right angles.

2. In a circle, the angle in a semicircle is a right angle. The greatest rectangle that can be inscribed in a circle is a square.

3. If C D is a chord in a circle perpendicular to the diameter A B. and from A any chord A Q be drawn cutting C D in the point P: the rectangle under A P, A Q, is constant.

Section III.

1. Equal triangles, which have one angle of the one equal to one angle of the other, have their sides about the equal angle reciprocally proportional.

2. Similar triangles are to each other in the duplicate ratio of their homologous sides.

3. A D B is a semicirle, A B the diameter of the circle, O the centre, C any point in the radius O B; draw C B. at right angles to A B; join O D, and from C draw C E at right angles to O D: Shew that A O, D C, C E. are the Arithmetic, Geometric and Harmonic means between A C and C B.

Section IV.

1. How many panes of glass, each 18 inches by 14 inches, will be required for 22 windows, each 5 feet by 3 feet 6 inches?

2 How long must be the tether of a horse which will allow him to graze half-an-acre of ground?

3. What will be the expense of gilding a globe, of which the diameter is 6 feet, and 3⅓d. per square inch.

Section V.

1. A farmer borrowed of his neighbour part of a hayrick, which measured 6 feet in length, breadth, and thickness; at the next hay-time he paid back two equal cubical pieces, each side of which was four feet. Has the debt been discharged?

2. A gentleman has a garden 150 feet long, and 80 feet broad. Now a gravel walk is to be made of an equal width all round it; what must the breadth of the walk be, to take up half the ground?

3. If the linear side of a certain cube be increased one inch, the surface of the cube will be increased 246 square inches: determine the side of the cube.

ENGLISH LANGUAGE,

Section I.

1. Define *grammar*, *orthography* *syntax*, *diphthong*.

2. Illustrate by examples the different vowel sounds.

3. Give the definition of *a consonant*. How many, and which, have variable sounds? State the instances in which the initial *h* is mute.

Section II.

1. Define *adjective*, *pronoun*, *adverb*, *article;* illustrate the *definite* and *indefinite* article: explain the power of the article in the following cases:

"Solomon built Him *an* house."
"*The* Stone which *the* builders refused."

2. How many and what parts are there in a proposition? Explain the terms used, and give examples.

3. How many kind of *conjunctions* are there? Illustrate their respective uses.

Section III.

1. Point out and correct the errors in the following sentences:—"*But whom say ye that I am?*"—"*The state of society has arrived to an alarming height.*"—"*Every body must answer for themselves.*" — "*Having incautiously laid down on the ground.*"

2. "We have *charming* weather."—"I saw an Indian *charming* a serpent." What part of speech is "*charming*," in these examples? Point out the difference of its use.

3. Give the plural of the following word:—*memorandum*, *index*, *datum*, *magus*, *medium*, *cherub*, *beau*, *virtuoso*, *die* (substantive), *lava*, *phenomenon*.

Section IV.

1. Paraphrase the following passage, and parse and explain the construction of the words marked in italics.

> "See Father, what first fruits on earth *are sprung*.
> From Thy implanted grace in man, these sighs.
> And pray'rs, which in this golden censer, mixed
> With incense, I, thy Priest, before Thee bring.
> Now therefore bend Thine ear.
> To supplication; hear his sighs though mute;
> Unskilful with what words to pray, let me
> Interpret for him, me his advocate
> And propitiation: all his works on me,
> Good or not good, *ingraft*; my merit those
> Shall perfect; and *for these* my death shall pay.
> Accept me, and in me from these receive
> The smell of peace toward mankind: *let him live*.
> Before Thee reconcil'd, at least his days
> *Number'd*, though sad, till death his doom (which I
> To mitigate thus plead, not to reverse)
> To *better* life shall yield him, where with me
> All my *redeem'd* may dwell in joy and bliss,
> Made one with me, as I with Thee am one."

2. Distinguish between ín-cense and in-cénse. What is the meaning of propitiation?

Section V.

1. What are the three distinct stages of the English language after its Saxon infancy or origin? Give dates and contemporary writers in each.

2. In what reigns did the following authors flourish; Chaucer, Spencer, Milton, Addison, Cowper? Give a brief account of the writings of *one* of them.

3. What language prevails chiefly in our translation of the Bible? Give instances, either from the history of Joseph, the parable of the Prodigal Son *or* the Lord's Prayer.

EXTRACTS.

Prejudice.—Prejudice may be considered as a continual false medium of viewing things, for prejudiced persons not only never speak well, but also never think well, of those whom they dislike, and the whole character and conduct is considered with an eye to that particular thing which offends them.—*Butler*.

Reason.—He that follows its advice, has a mind that is elevated above the reach of injury; that sits above the clouds in a calm and quiet ether, and with a brave indifference, hears the rolling thunders grumble and burst under his feet.—*Scott's Christian Life*

Industry.—Excellence is never granted to man, but as the reward of labour. It argues, indeed, no small strength of mind to persevere in the habits of industry without the pleasure of perceiving those advantages, which, like the hand of a clock, whilst they make hourly approaches to their point, yet proceed so slowly as to escape observation.—*Sir J. Reynolds*.

PAPERS FOR THE SCHOOLMASTER.

No. 31. SEPTEMBER 1, 1853.

The Education Bill.

It is with considerable regret that we find that Lord John Russell's "Bill for the Promotion of Education in Cities and Boroughs in England" has not been pressed forward in the late session. We indulge the hope that the necessity arises from the engrossment of Ministerial energies upon some other very important measures which have passed the Legislature, rather than to any deficiency of earnestness or courage on the part of its noble author. There has indeed been a considerable outcry raised by those, of whose services in their proper sphere we would speak with gratitude and respect, but whose opinion on this subject, even though we suppose their opposition to be spontaneous, possesses no special value. We recommend those who are opposed to a more comprehensive scheme of education to examine our prisons and workhouses and to note the result of an educational test applied impartially to their inmates, before they venture to sacrifice a measure like this to the narrowness of any denominational prejudices. We say *prejudices* and not interests, for the merit of the Bill consists in this, that it deals with the extremest delicacy with those religious scruples and principles which have hitherto frustrated every measure of the kind hitherto propounded. We would suggest the enquiry from those religious Societies who have led on this crusade of petitions, whether if we multiply Sunday schools in every city and village of the land, and could command the most effective in the place of often the most imperfect teachers, however earnest in purpose they may be, we should by these means render one jot less imperative such a comprehensive scheme of National Education as this Bill proposes. If this measure be, as we hope, only postponed to the next session, we also throw out the hint whether our new Schoolmasters' Associations might not profitably discuss the propriety of giving expression to their own sentiments in counter petitions to the Legislature.

Meanwhile we are thankful for the improved interest which is awakened in the public mind and the Senate, and though we were disposed at first to regard Lord John Russell's Bill as somewhat too homœopathic for our views, yet when the old established mode of practice has so repeatedly failed, we cannot blame him, and the less so, since we observe these disturbing effects of even an infinitesimal dose. On one account we are not sorry for the postponement, in order to allow opportunity for a revision of some of its details. We should like to see the introduction of a parallel establishment of Industrial Schools under the conduct of the Poor Law Board, into which the children contemplated by Lord Shaftesbury's Bill shall be sent by magistrates, and *every child whose parent eats the public bread,* by Guardians of the Poor.

Again, we have no confidence that the Bill would succeed in its main feature of applicability to municipal towns, as long as it requires a sanction, before the provisions of the Bill can be adopted in any given place, of not less than two-thirds of the municipal council. We believe that for a long time to come the instances of boroughs taking advantage of the measure will be exceptional—and here we would express our superior faith in the Minute of last session, which was intended to be supplementary to the Bill, but which we are persuaded will be the *vis viva* of the whole measure. The order of the practical working, we believe, will be this: the non-municipal localities, shut out from the provisions of the main scheme, will be the first to avail themselves of the readier operations of the Minute, and not till the dissentients in municipal corporations have seen the futility of their fears, and become ashamed and provoked to activity by the educational improvement of other localities will corporate boroughs *follow,* when they were expected by the Bill to lead on, the campaign against the forces of ignorance, vagrancy, and crime.

What we consider to be of vital importance, and what, if our voice could reach them, we would press on Ministers is this: that the Minute to which we refer, should be at all events invested with the authority of Parliament, and then though the main Bill should be postponed or even yield to the clamour of mistaken opponents, whose influence is weakening every day, its spirit and principles will be ultimately secured.

Of one thing more we feel sure, that Ministers have but to employ the same power which has secured the triumph of two important measures relating to the Government of India and Charitable Trusts; and if his colleagues are as earnest in this cause as Lord John Russell himself, the like success is equally sure, to which posterity will accord the highest mead of honour.

Examination for Certificates.

No. III.

The next subject that presents itself for remark is "English Grammar and Composition." If reference is made so Schedule B, it will be observed that one of the subjects there is "History and Etymology of the English Language." In practice, the whole of these elements are included in one paper on "English Language."

Perhaps there are few subjects upon which so much is known, and so little understood. This may arise from the fact, that nearly the whole of our popular grammars were written as text books for pupils, and therefore constructed upon the labour-saving principle—the master setting a task, the pupil learning it. Teachers reading for certificates, may at once throw overboard the whole of this class, as they seek a knowledge of the *rationale* of the structure, and modes of construction proper to the language. The subjects included in this paper are second only to those in the Scripture paper. A thorough knowledge of them lies at the foundation of a teacher's intelligence, and his success in his profession. His reading on any subject will yield him profit in proportion to his thorough insight into the power and appliances of language. Moreover his mother tongue must be his great instrument—the means, and almost the only one, by which he will have to convey thought to the minds of his pupils. Viewed in whatever aspect it may, it is full of importance; and not only deserves, but demands a corresponding attention.

This paper, to those whose idea of grammar, &c. has never reached beyond the small school manuals, will seem to take in a wide range. It does so, and yet the elements are strictly co-ordinate, and every one of them essential to a good knowledge of the language. The paper will be found to contain questions on the matter of the ordinary text-books; the History and Etymology of the English language; the analysis of sentences; and a passage to be paraphrased.

The *History* embraces both the language itself and its literature: that is, you will be required to bring up a knowledge of the several elements which have at different periods entered into, and become incorporated with, the language; and secondly, to show a fair knowledge of English Literature. The first should present no great difficulty,—your knowledge of the course of our national events will have supplied the broad outline, which may be filled up from the grammar of Professor Latham, or the Rev. C. H. Bromby. A good knowledge of English Literature is not of easy acquirement, the Examination Papers have therefore only required, that some knowledge should be shown of the chiefs of our literati—authors of whose eminence was never any doubt. Most teachers know Chambers' Literature, it is valuable as presenting a fair summary, though necessarily but sketchy. To those reading for certificates we recommend "Biographical Sketches of the British Poets," by the Irish School Society. This book, published at a nominal price, contains not only the lives of our principal writers, but a collection of the choicest critiques on their works.

The *Etymology* of our foreign derivatives is to be found in most of our modern grammars. A perfect acquaintance should be obtained, both of the prefixes and affixes, before getting up the roots. A few repeated daily, especially those connected with the lesson books employed in your school, will soon make them familiar. Much advantage will result from your forming a list of examples of the good use of these derived words, as without some carefulness on this point, you may fall into some ridiculous errors. It is not the root that determines the force of a particular word, but present usage.

Respecting the *Analysis of Sentences* we shall be more particular, as it is evident that much obscurity exists on this point in the minds of many teachers. This has arisen mainly from the employment of the word 'analysis' to denote, not the common mode of breaking up sentences into words for the purpose of parsing, but the separation or division of a sentence into its principal and accessory clauses, and as a second step, analysing each clause, so as to show its logical element—as subject, predicate, object, and adjuncts. For teachers and apprentices there can be no doubt respecting the value of this exercise; it gives more than any other exercise can, the modes of construction peculiar to our language—how thought is expressed, and how the elements in a complete proposition may be modified. Its value is greater still in practical teaching; it prevents a teacher when interrogating on the text from playing with, as often happens, the less important words in a sentence, and overlooking altogether others full of power. We commend this kind of analysis to the teacher, and the apprentice, as being full of valuable results, whether in connexion with an examination paper or school work. Mr. Morell, one of H.M. Inspectors, has published a work on the "Analysis of Sentences," exclusively devoted to this subject. Cornwell's "Young Composer," though not written for this special purpose, will be found valuable. (See also Vol. II. of these Papers, pp. 84 and 111).

The object of the *Paraphrase* is two-fold; first, as a test of the examinee's intelligence in seizing hold of the precise meaning of an author; and secondly, his power in reproducing another's thoughts in suitable language. We need hardly say that the pieces given for paraphrase are generally from our best poets. Good poetry is always the result of great labour; not only are the sentiments elevated and refined, but the language is choice, and in the best pieces every word is carefully selected. Good poetry therefore is valuable, both for its thought, and the almost perfect model it presents of the use of choice and precise language. To those unaccustomed to paraphrasing a good deal of attention will have to be given, before it can be even fairly done. The common fault seems to be, to suppose that when the *general* scope of the passage is apprehended, it can then be satisfactorily rendered. This is a great error, in the verses likely to be set, nearly every word will be found to have a force peculiar to itself in relation to the sentence of which it forms a part; and whenever a sentence is rendered without distinct reference to its several qualifying adjuncts, it will be imperfect. Great assistance in forming a perfect paraphrase is rendered by a good knowledge of the analysis of sentences. Correct analysis forms the habit of gathering up, arranging methodically, and accounting for, not only the essential elements of a sentence, but every adjunctive word and phrase. Paraphrasing is a test of *Composition* or the use of language, as well as of an intelligence of its power. The best advice we can offer on this difficult subject is, that you should employ simple language, and construct short periods. Teachers of elementary schools, in our opinion, should carefully cultivate the Saxon element of our language. It is emphatically the language of the common people, and the more thoroughly a schoolmaster has mastered it, the more efficient will his teaching be. The simple, transparent, and powerful style of the authorized version of Holy Scripture, will, in the case of ordinary teachers, be infinitely preferable, to that inflated style which some adopt. Whatever style is adopted, care should be taken not to use words, unless with a knowledge of their precise power. Words misapplied is a serious fault—they are evidence of a want of power to set forth thought in appropriate and intelligible language. Mr. Hunter, formerly of Battersea, has published a little tract containing rules and observations on paraphrasing English Poetry, with examples and exercises, entitled "Exercises in English Parsing."

There remain to be noticed the *Etymology and Syntax* as found in the common text-books. On these points it may be expected that those who have been in charge of schools, will be pretty conversant. There should be the power to define with great accuracy and precision all the terms employed in grammar, also to explain the uses of the various moods and tenses. The etymology and syntax in Cornwell's Grammar are good; perhaps the most complete syntax and prosody to be found in a small work, is in Turner's Grammar. The Pupil Teacher's Grammar deserves special notice, as containing a general and accurate *résumé* of all those points included in an examination paper on the English language: it was, we believe, constructed with a special reference to teachers and others, proposing to sit for certificates and scholarships.

We cannot quit the subject of Language, without again urging on teachers its great importance, not merely as a matter of scholarship, but as the instrument with which they must be well acquainted in order to succeed in conveying instruction. In the following remarks by Mr Arnold, H.M. Inspector, we fully concur; for although they refer primarily to apprentices, they are equally applicable to the class for which we write:—"I attach little importance to the study of languages, ancient or modern, by Pupil Teachers, for they can seldom have the time to study them to much purpose without neglecting other branches of instruction which it is necessary they should follow; but I am sure that the study of portions of the best English authors, and composition, might with advantage be made a part of their regular course of instruction to a much greater degree than it is at present. Such a training would tend to elevate and humanize a number of young men, who at present, notwithstanding the vast amount of raw information which they have amassed, are wholly uncultivated; and it would have the great social advantage of tending to bring them into intellectual sympathy with the educated of the upper classes."

Though *Penmanship* does not appear in the list of subjects, in either of the schedules, it is yet measured, and its value marked on the certificate: this may be taken as the proper place to make a remark respecting it. Whatever deficiencies existed among the old race of schoolmasters, this did not; all could write fairly, many of them well. The modern race has neglected this elegant and useful art, not a few fail to write decently, some even write discreditably. This ought not to be, and we think the time is near, when the examiners will attach greater importance to this department. School-managers do already, and those masters who do not train themselves to write a fair legible hand, will find the want of this qualification an insuperable objection to their holding good schools.

Amusement in Numbers.

No. II.

In the last article on this subject we remarked that in Mental Arithmetic one object should be to practise children in rapid calculation. We would, however, guard ourselves against being thought to mean that the operations in this science should be merely mechanical and the results merely magical. As in grammar, so in Arithmetic, rules should be, as far as possible, rendered intelligible before they are applied to practice. Children are sometimes found in schools to produce results with amazing quickness and correctness, and this is so far of considerable importance; but Mental Arithmetic cannot rank as a science, unless they are capable at the same time of explaining as well as stating the processes by which they reached them. And not only so, but that master only makes this half-hour of study produce its fullest fruits, when, instead of requiring operations to be performed according to rigid formulæ, he encourages each of his children to pursue his own calculations in his own way. A comparison of the processes pursued by different boys is as valuable as the mental operation. To this end the entire subject should be made *progressive*, like any other science, and the pupil should be made to commence and proceed with principles which his mind is capable of comprehending. Proceeding on these principles, the lowest class should begin by answering questions which turn supply upon the cost of so many articles costing so many pence or so many shillings each. The cost of each, as proposed to a higher grade of children, should be an *integral* part of a pound or guinea, as

Ex. 1. What is the price of 20 articles at *half-a-crown each?*

Ex. 2. What is the price at 6s. 8d. or at 3s. 4d. or at 1s. 8d. each? The pupils should in such cases be taught to observe what fractions these several prices represent of a pound.

The following anecdote of the great but youthful calculator, Noakes, which is related in Smith's "Key to Pleasant Exercises," will explain how boys may be encouraged to facilitate more difficult questions, such as those where the prices are not integral parts of a pound. In reply to the question, *what* 8,000 *pairs of gloves would cost at* 2*s.* 4½*d. a pair*, he answered, £950, without hesitation, and thus explained his process: "I doubled the price to get rid of the fraction, and took, therefore, only half the number of gloves—i.e. 4,000 at 4s. 9d. Then I borrowed 3d., adding it to the price, and, of course, 4,000 crowns are £1,000, from which I repaid the 4,000 threepences, or 1,000 shillings, which are £50, and that left £950."

There is no reason, from what has been said, why mental calculators should not have some leading guide-posts, some fixed points fastened upon their minds, such as that 240 pence are equivalent to £1; 1,200 pence to £5. Mr. Smith, the author of the interesting work referred to, put the question to Noakes—*how much would* 1,197 *periodicals come to, which cost* 3½d. *each?* In a few moments he answered, £17 9s. 1½d., and thus explained the mental process: "I borrowed three to make 1,200, which, at 1d., would be £5; now, 3½ times £5 would be £17 10s., from which repaying, for the three that were borrowed, 10½d., there is left £17 9s. 1½d."

Another principle or point to be fixed on the mind is that articles costing so many pence or shillings each should be reckoned as if costing only *one*, and then the result must of course be multiplied by the real number of pence or shillings. The reason for, as well as the justice of this rule, can be made apparent to any child.

Ex. 1. What is the value of 136 articles at 6s. each?

136 at 1s. each = £6 16s.
6 × 136 = £40 16s.

Ex. 2. What is the value of 1,200 at 4d. each?

1,200 at 1d. each = £5 0 0
1,200 at 4d. each = £20 0 0

Here the standard that 1,200 pence is £5, will be remembered.

(1.) Particulars connected with pounds and hundred-weights must be of importance to practical calculators. On this account the tradesman not only reckons, as we have shewn, his articles as if they cost 1d. per pound, but he bears at all times in mind that every cwt., consisting of 112lbs., must be valued at 9s. 4d. So, mark his process:

Ex. What is the value of a cwt. at 8d. per pound?

A cwt. at 1d. per pound, is 9s. 4d. (standard.)
8

Then a cwt. at 8d. is £3 14 8

(2.) Again, particulars connected with a fixed standard of time, as a month or a year, must claim particular attention from their frequent occurrence as elements in calculations. Supposing we had committed to memory, as one of our standards, that 365 pence gave £1 10s. 5d., such sums as the following may be rapidly worked. *How much does 7d. a day come to in a year?*

365 pence is £1 10 5 (standard)
7
Then 7 × 365 is £10 12 11

It belongs, however, to the "Amusements" in Numbers to discover another way, for a certain number of pence per day produces in a year the same number of pounds, and of half-pounds, and of fivepences.

Thus, 7d. per day is
£7 or £7 0 0
7×10s. or 3 10 0
7×5d. or 0 2 11
£10 12 11

Notes of Lessons.

[*The Editors wish it to be understood that the insertion of "Notes" from Correspondents is not to be considered as marking their approval of the Methods which may be adopted.*]

THE CREED.

OUTLINE NOTES ON WHAT GOD IS. "I BELIEVE IN GOD." FOR CHILDREN OF ABOUT TWELVE YEARS.

What God is.

I. *In His nature,*

1. Do the Scriptures offer any evidence of His existence? They assume that He is. The fact was well-known. Persons had heard His voice. Hence no proof that there is a God is attempted. The Scriptures inform us *what* God is. He is a spirit. John iv. 24. Bring out what a spirit is. Spirit is invisible, so is air and other gaseous bodies. Spirit is capable of thought. Spirit is unchangeable.

2 *God is infinite.* Bring out idea of infinite before using the term. God infinite in *power*, may be inferred from the fact of creation. Gen I. 1. Compare with Psalm cxxxv. 6. *In His presence.* He is everywhere. He is *here.* 139 Psalm Compare with 1 Kings VIII. 27. Hence God cannot really be in one place more than another, but he can *manifest* His presence, and this He does in Heaven. Jno. XIV. 2. Also in His church. Matt. XVIII. 20. He is infinite in His *existence.* He is eternal. 90 Psalm 2. He is infinite in His *knowledge.* 139 Psalm 2-4.

3. God is *immutable.* In His na-

ture. Change must be for better or worse, if capable of change He could not be infinite. In His *purposes*, *promises*, and *threatenings*. Compare Malachi III. 6. with Isaiah XLVI. 10.

II. *In His character.*

1. The first feature of the Divine character brought out in the Bible is His *goodness*. Gen. I. 31. A remarkable confirmation of this the fact that all the contrivances in nature are to produce pleasure, that there is not one whose *purpose* is to produce pain. The Divine goodness is seen in His works. 114 Psalm 9. On His *providence*. 1 Matt. 45., 33 Psalm 5., 36 Psalm 6. but especially in redemption. The goodness of God is described according to the aspect in which it is viewed. As love—seeking the happiness of its objects; as bounty—bestowing blessings on the needy; as mercy—delivering from misery the undeserving; as forbearance—not punishing until mercy has been slighted and much long-suffering abused.

2. Another feature in the divine character brought out in the Bible is *His holiness.* Holiness in man is conformity to the Divine will:—but what is it in God. Conduct which is productive of happiness we call *virtue*, and its opposite *vice*. The one God *approves*, the other He *hates*, hence we say, *God is holy*—He approves that which produces good, and hates that which produces evil. Hence holiness is opposed to *selfishness*—seeking your own happiness, if not at the expense, yet without respect to that of others. It includes *justice*. This requires from the creature obedience, homage, and love to the Creator. It rewards obedience, and is then termed remunerative; it punishes sin, when it is called punitive. It includes *truth*.

[We give insertion to the following Notes, as their arrangement is somewhat peculiar. Without offering an opinion on their form, we beg leave to suggest that explanation of terms during the course of the Lesson is likely to lessen the interest of the children and to mar its effect. All needful explanations should be given while making the children "conversant with the facts" on which the Lesson is founded.—*Editor*.]

PARABLE OF THE UNJUST STEWARD.

EXPLANATION OF TERMS.

REMARKS.

I. *Introduction.* Desire the elder children to read the parable simultaneously, and require the younger ones to point with their fingers to the words as they are repeated, in order that their attention may be secured. Recapitulate the facts of the parable in familiar words, so that the children may be conversant with them, and state that just before they were spoken Jesus had been showing the Pharisees the mercy of God to repentant sinners, in order to justify himself in having eaten with Publicans, and that probably some of the latter were among his readers.

EXPLANATION OF TERMS.

Steward is a person having the charge of another's household affairs, their duty being to provide provisions for the family and to manage the property of their employers generally.

Was accused—some one told his master he had wasted his goods.

Give an account &c. Let me see the bills showing what money you have paid, and what you have received.

Cannot dig. Do not know how to till the ground. Am too proud to earn my bread in this way.

I am resolved. I have made up my mind, and I am determined what to do.

A measure of oil, three gallons and a half.

A measure of wheat, eight bushels.

Receive me into their houses. Make me a home.

Take thy bill.— Reference might here be made to bills now used as proofs of debts, and the children told that probably in this case. the debtor wrote an account of what he owed his Lord, and the steward signed it.

II. *Explanation of the parable.* Lead the children to observe that a *steward* would have many opportunities of wasting his master's property. Whether this would be likely to be observed by others. Draw from them that it would, by picturing to them the case of a wasteful housekeeper in a gentleman's family. Other servants would notice her extravagance. What those servants might do—particularly those who had respect for their employers. This steward *was accused* to his master. What an employer would do in the present day if a servant was accused of having done wrong: would endeavour to find out whether or no he was guilty—if he were, would dismiss him. *What the master in the parable did.* Picture out the feelings of the steward in the position in the parable—about to be deprived of his situation—most likely without a chance of being recommended to another. Lead the children to recollect that a person engaged in a steward's occupation would have but little chance of knowing how to perform any kind of *manual labour*; his position had been a respectable one; he was too proud to descend to begging. How a person owing money would feel towards one who lessened the amount due from him to his creditor. Would perhaps wish to show gratitude towards him who had done so by performing some service for him. *What the steward in the parable did?** Whether this was right or wrong? To whom did the money due from the debtor belong? He had already committed a great sin—was going to commit more: thus one sin leads to another. Whether the master praised the dishonesty of the servant? What quality the steward showed? Praised his forethought only. Must have felt angry at his thus robbing him still more than he had done before complaint was made.

III. *Application.* Ask the children whether we, like the steward, have a master—whether he has given us anything to use in his service. Health, strength, and reason, and to some riches: to all some portion of worldly goods. Remind the children that we shall not always have these—a day will come when death will oblige us to give them up, just as the steward had to give up the charge of his master's goods.

REMARKS.

The children would here be most likely to say, tell her master.

If the children do not readily answer that, he would call him to him and question him; ask them what their teacher would do if a little girl were complained of.

The teacher might here ask a child, whose father was a shoemaker, whether he could build a house.

The children will remember that part of the steward's duty is to receive money due to his master.

* This question the children will be able to answer.

The teacher might use her own judgment as to whether the quantities meant by the two measures should be noticed.

The children will probably say his thought.

EXPLANATION OF TERMS.

The children of this world are, &c.—People are often more careful to plan well in worldly matters, than the Christian is to plan for the good of his own soul and the cause of religion.

Mammon—Riches.

What the steward was likely to gain by his manner of acting by his Lord's debtor? He so acted while in office, that when he was turned out he would find friends. Whether we can so use what God has entrusted to us, that we shall find a friend when we give up their charge. If we can so use our reason in trying to know the will of God, and our strength in performing that will. Jesus will be our friend when both are taken from us. Require the children to say how we might use our money God's service.

In the concluding words of the lesson impress upon the children that from this parable we learn the necessity and benefit of rightly using the gifts of God, so that when we give them up we may be received into everlasting habitations.

If time permit, the children might be taught, as an illustration of the great moral taught in the parable, the text from 1 Timothy vi. 18, 19.

REMARKS.

The children will say by helping those who are poorer than themselves.

THE CAMEL.

(First call the attention of the class to the different parts of the animal, and *train out* the adaptation of every part of its structure to its *habits* and *locality.*)

The Camel is a large and somewhat awkward-looking animal, with long and slender legs, and a large body, much drawn in at the flank; height of the largest species, about 7 feet. The *feet* are very large and flat, and covered with long hair; they are furnished with a sort of cushion underneath, which is elastic, and expands when placed upon the ground, the foot thus yielding to pressure, prevents the animal becoming lame during its long and wearisome journeys, and makes its footing sure upon the sandy surface over which it travels.

The long neck, of great service in enabling the camel to descry water at a great distance, also to reach the tender young shoots of trees.

The nostrils are slits which can be opened to inhale the air, or closed to keep out the clouds of dust which are so frequent in the native regions of the camel.

The eyes are very prominent, defended by long eyebrows—sight very acute.

The hump on its back has been thought a deformity, it is, however, a solid lump of fat, which, in time of want, dissolves, and proves a source of nourishment to the animal. By examining the lump, the condition of the camel to undertake a long journey can be ascertained. *The covering* is long and coarse hair, which is easily plucked off when the animal is alive. The camel inhabits Arabia and the adjacent countries, Egypt, Persia, Syria, and the northern parts of Africa. The Moors introduced it into Spain It is better adapted to dry sandy countries, than to the damp and changeable climate of temperate regions, this is the reason why it has never been naturalized with advantage in other countries to which it is not indigenous. Frequent mention is made of the camel in Holy Scripture. Pharoah gave to Abraham among other domestic animals, *camels.* It is frequently mentioned in the 24th chapter of Genesis, and it is interesting to notice throughout the whole of this chapter the care and consideration bestowed upon these valuable beasts. We read again that the Ishmaelites, to whom Joseph was sold by his brethren, "came from Gilead with their camels bearing spices, balm, and myrrh, going to carry it down to Egypt." Again when the Midianites encamped against Israel, "like grasshoppers for multitude," both they and their camels were without number. The Hagarites, too, were possessed of such immense herds that the Reubenites took from them in war, 50,000. It appears to have been the custom of the Hebrews, when they went to battle, to ornament their camels' necks. "And Gideon arose and slew Zebah and Zalmunna, and took away the ornaments that were on their camels' necks.

The camel seems pointed out for man's use by the power it has of bearing hardships and of carrying heavy burdens, also by its extreme docility. It is extremely gentle and forbearing towards other animals; it is very patient, and never refuses a burden or to proceed on its way, except when completely exhausted.

It feeds upon different kinds of vegetable substances, and is capable of going three or four days without water, but the idea that they are frequently killed for the water contained in their stomachs is erroneous. The last stage of thirst renders the traveller so unwilling and unable to endure the exertion of walking, that he continues his journey on the back of his camel, in the hope of obtaining water, rather than expose himself to certain danger by killing it, and thus leaving himself without hope of escape from the desert. When alive, the camel is the only means of transit across the deserts—frequently called the "ship of the desert." A large number form a caravan. To the Arabs it answers the purpose of the *horse*, *cow*, and *sheep;* they consider it a sacred animal, and a gift from Heaven. The milk furnishes them with excellent food. The only mechanical art practised by the Arabs is the manufacture of camel's hair into a coarse kind of cloth, which serves for clothing and covering for their tents. The camel affords to the inhabitants of the desert *shelter*, *food*, and *clothing.* They make tents and clothes of the *hair*; saddles, belts, sandals, and buckets of the hide; they feed on the flesh, and drink the milk. In the prayers of the Arabs, in the morning, at noon, and in the evening, their camels are not forgotten. They implore the Almighty to send rain upon the earth, and cause food to grow for their camels, and to keep them as well as their own families under His especial care.

Lessons to be learnt:

1st. The goodness of Almighty God in having created this valuable and useful animal.

2nd. His wisdom shewn in its structure, which is so well-suited to its habits and the countries in which it lives.

BRIEF NOTICES OF NOTES OF LESSONS.

A Pupil-teacher who puts to us a series of questions in relation to the design of Collective Lessons has mistaken the tenor of our remarks. In such lessons, "information" must be given. The question is, how. It may be so given as to exercise no other faculty but memory, or it may be so given as to call into vigorous exercise other faculties of the mind in addition to that of memory. The mental, faculties, like some physical organs—teeth for instance—are not developed till there is occasion for their employment. The purpose of the collective lesson we hold to be to give instruction in such a way as will develope or strengthen such faculties of the mind as belong to the period of life of the class of children which happens to be under instruction. Several lessons which we have inserted in some of our recent numbers we deem to have kept this object in view. Vide The Tea-Pot. Animal Heat.

The Collect for the First Sunday in Advent, by a Village Teacher.—A most elaborate analysis of this form of prayer which must have occupied many hours in preparation. The same amount of labour and skill expended on some of the narrative precepts or parables of the Bible would have produced Notes by which our subscribers might have been benefited. They would not thank us for inserting these.

On Drawing a Straight Line, by S. F.—A lesson drawn upon the method of the Model Lessons of the Home and Colonial Infant School Society. It would form a fair introductory lesson on form, but the subject is not of sufficient importance to warrant its insertion.

The Horse, by J. G.—Their worth may be inferred from these Notes, including in eight words a description of the structure, habits, and uses of the horse.

Dew, by F. A.—A very proper subject, and handled in the first division in good style. First, attention is drawn to the circumstances under which dew is found, and then, by well-graduated steps, an attempt is made to excite curiosity as to the mode of formation. The other parts of the lesson, treating of its formation, are not of equal ability.

A Pop-gun, by G. D.—A very good subject for lads of the right age. Here it is first presented as an object which the children are to describe, then some statements are made of its mode of action. In the former part the matter is too easy, in the latter it is not adapted to cultivate thought. A good teacher will always avoid telling facts which children by a little ingenuity might discover.

Europe, by H. W. S.—A collection of facts which would furnish matter for a dozen lessons. Some teachers have yet to learn that the more circumscribed the subject of a lesson, and the more thoroughly exhausted it is—doing perfectly what is done—secures better mental discipline than attempting a great deal. In teaching Geography it is well to associate historical and other incidents with names of place, as otherwise the latter are soon forgotten.

Educational Intelligence.

AYRSHIRE CERTIFICATED SCHOOLMASTERS' ASSOCIATION.—Rules agreed to at a meeting held at Kilmarnock, on the 16th day of July, 1853.

I.—The Society shall be composed exclusively of persons practically engaged in teaching, in Ayrshire, holding Government Certificates of Merit, and shall be denominated *The Ayrshire Certificated Schoolmasters' Association.*

II.—The object of the Association shall be to diffuse information among its members regarding subjects connected with the business of education, by the reading of Essays, discussing literary subjects and giving their experience in the training of pupil-teachers; to maintain cordiality of feeling, to assist each other by advice; and generally, to promote the interests of education and the respectability of the profession.

III.—The Annual Meeting of the Association shall be held on the last Saturday of May.

IV.—The business of the Association shall be conducted by a Preses and Secretary, chosen at the Annual Meeting, who shall continue in office for twelve months, and may be re-elected.

V.—The place of meeting shall be fixed from time to time by the General Meeting.

VI.—Any three Members may join in a requisition to the Preses and Secretary to call a special Meeting of the Association, and the Secretary shall on receipt of such requisition intimate a *pro re nata* Meeting. Intimation, stating the business to be transacted at such meeting, shall be forwarded to the Members ten free days previous. Similar intimation shall be given in regard to the Annual Meeting.

John Mackinnell, Preses.
Charles Marshall, Secretary.

Birmingham and Wolverhampton Day School Teachers' Association.—Sir,—On Saturday, August 6th, the first general meeting of the above Association met in the Boys' School, Hurst-street, at two o'clock, p.m. Mr. Marsden, master of the school at Tipton, in the chair. Mr. Barker, secretary to the late "Birmingham Day School Teachers' Association," was called upon to read his report. The report proved beyond a doubt the necessity of such Associations, and their great utility to teachers.

The Association has been in existence three years; about thirty essays have been read during that time on various subjects, by members of the Association. In the library there were 400 vols. of the choicest works now extant, most of which had been added to it since Christmas. The report went at full length to show how the South Staffordshire Association had been joined to the one whose report was now being read. The report concluded with reading the balance-sheet. This proved that something had been doing. Amount received, £2 17s.; by cash paid, £2 6s. 9d.; balance in favour of the Association, 10s. 3d. The first resolution was then put to the meeting: "That Mr. Marsden be appointed president; Mr. Harrison, vice-president; Mr. Barker, secretary; and Mr. Harris, treasurer, for the ensuing year. Second resolution: "That the following gentlemen form the committee of management for the ensuing year—Messrs. Barker, Harrison, Marsden, Whitehead, Harris, and Lewis." Third resolution: "That the report read by the secretary be received and adopted." The best thanks of the meeting having been given to Mr. Marsden for his able conduct in the chair, it was adjourned for six weeks.

I am, sir, yours, most respectfully,

Edward Barker, *Hon. Sec.*

Birmingham and Wolverhampton Day School Teachers' Association.

1.—That the meetings of this Association be held at Birmingham and Wolverhampton alternately, once in six weeks.

2.—That the objects of the Association be the improvement of its members professionally; by the circulation of Educational Works and Periodicals; by the reading and discussion of original papers on subjects bearing on school matters; and by means of lectures on scientific subjects.

3.—That this Association consist of Day School Teachers of both sexes.

4.—That the subscription be 1s. 6d. for Masters and Mistresses, and 1s. for Pupil-teachers, to be paid quarterly in advance.

5.—That all candidates be duly proposed and seconded, by members of the Association, at one of their regular meetings.

6.—That this Association be under the management of a committee of seven, with power to add to their number; and that five form a quorum. That the officers be a President, Vice-President, Secretary, and Treasurer; and that together with the Committee, they be appointed annually.

7.—That there shall be an annual meeting of the members of this Association on the first Saturday in August; when a report of the past year's proceedings shall be read by the Secretary, and an account rendered by the Treasurer of all monies received and expended during the past year.

8.—That all meetings of the Association be commenced by prayer.

9.—That a special meeting be convened for the alteration of any rule, or rules, by the names of three-fourths of the members being given to the Secretary, with an intimation of the alteration intended.

Correspondence.

Northampton, August, 1853.

Sir,—There is, perhaps, no subject in which I have taken more interest than that of the formation of some common bond of union amongst Church Schoolmasters. There is much in the position of an Elementary Teacher calculated to make him yearn for kindred, sympathies, and association with those, who, from a similarity of pursuits, can understand his feelings, and aid and cheer him in his work; whilst, at the same time, there is no class in the community more isolated and shut out from those sympathies than that to which he belongs. For this, there are many reasons; but, perhaps, the most important is, that his social position is much below that of those belonging to other professions, whose equal he is in intellectual and literary attainments; whilst he is prevented, by these very attainments, from cordially sympathizing with his equals in social position. This has been deeply felt by many others as well as myself, and wishing to remedy this, some have earnestly urged the members of the clerical, medical, legal, and other professions, to rank the schoolmaster amongst their equals, and thus allow him to enjoy the advantages of social intercourse, amongst those with whom his education and mental acquirements best fit him to sympathize. But so long as the remuneration of the Church Schoolmaster remains so much below that of the other professions, it is probable that his social intercourse with them would tend to lead him into expenses above his means, and to engender dissatisfaction with his position, rather than strengthen and encourage him to persevere in the faithful discharge of his duty. But seeing that the Schoolmaster is so much separated, either by his social position or mental acquirements, from the other classes of society, it seems especially important that he should have some common bond of union with those of the same profession as himself. It is true the Training Colleges have done much good in this direction, and are likely to do even more; many friendships are there commenced' likely to produce a beneficial effect on the future career of those by whom they are formed; and the principals and other teachers in these institutions are, I know, generally looked up to by the students and appealed to for solace under, and guidance in, their difficulties, when they take charge of schools. These appeals too are seldom made in vain, and many teachers, dejected and saddened by the trials of their position, have been comforted and cheered by the council and advice of those who, having instructed them whilst students, continue to take an active interest in their success as teachers. But many are not thus connected with Training Institutions, and it is in the very nature of that connexion for time to weaken its influence on those who are. If then Church Schoolmasters would enjoy the advantages arising from co-operation, it must be by the establishment of some *union* amongst themselves.

It was, therefore, with much pleasure, that I attended a meeting held at Birmingham, last Easter, for the purpose of effecting the union of Elementary Teachers connected with the Church of England, a brief report of which appeared in your Papers for June. Since that time the Secretaries then appointed have been engaged in active correspondence with existing associations in their respective districts; and not only have nearly all the existing Associations signified their wish to unite themselves with each other, but in many places where no Association previously existed, they have been formed, that their members might not only possess the advantages arising from local association, but also thus unite themselves to the general body.

But, not only does it thus appear that a very general feeling favourable to the contemplated union exists amongst Schoolmasters of the Church of England, but it has also spread amongst the Teachers connected with dissenting bodies, the Church of Scotland, and also the teachers in connexion with the Irish Society. This has induced Messrs. Tate and Tilleard to advocate a general union of Schoolmasters in Great Britain and Ireland, quite independent of their religious creed, and based upon principles sufficiently lax, to admit, as members, Teachers from every denomination. But however desirable, on some accounts, may be such a union as that contemplated by Messrs. Tate and Tilleard; yet I, at least, think that a union, worthy of the name, can only exist among individuals who can heartily sympathize with each other on all the most important subjects connected with their profession; and that where such a diversity of sentiments exists on religious topics, as must necessarily be felt amongst men connected with so many different religious bodies, that union could never be very valuable, and would be quite powerless to call into exercise the best and purest feelings of the heart. Again, the very vastness of such a union as should include the teachers of every denomination in Great Britain and Ireland would be fatal to its success, since it is obvious that they could never all meet together, and therefore, could only hold intercourse by means of delegates from either districts, or denominational associations. If the latter course were adopted, then, indeed, might the union of Church Schoolmasters appoint representatives to meet those selected from other denominations, and thus shew that though their dearest hopes, and warmest affections, were given to their brethren of the same faith, yet that they held forth willingly the right hand of fellowship to all who laboured in the cause of Christian Education.

But it is proposed that the Union of Church Schoolmasters shall through the central and district secretaries, from time to time, take the sense of its members on acts of the legislature affecting education, and thus act in concert, should it be thought advisable, to memorialize the Committee of Council on any subject; but this unanimity of action could never be effected by a union of all denominations, where their interests and views would necessarily be opposed to each other,

Another advantage, also naturally arising from a union of Church Schoolmasters, will be the mutual interchange of papers, lectures, &c., as well as reports on the success or failure of particular plans of instruction. But this advantage could only be obtained when the combining parties were agreed on all the essential points of the instruction they wished to impart; and when the object aimed at by that instruction widely differed, they must obviously be sought by different and independent means.

A meeting of the most active members of this union will probably be held during the next month, to arrange respecting a General Annual Meeting, at Christmas, and also respecting meetings in each district, previous to the general one.

When these arrangements are completed, advertisements will be inserted in all the Monthly Papers devoted to the interests of the Schoolmaster, and an opportunity thus given to every Church Schoolmaster to attend either the General Meeting, or the one held in his own district.

Hoping you will have the kindness to insert this letter (for the length of which, I feel I ought to apologize) in your next number.

I remain, Sir, your most obedient Servant,

B. SIMPSON.

[Though we hold a decided opinion on the subject of a general association of Teachers, we do not feel ourselves called upon to state it at the present stage of the movement. We would rather give a word of caution respecting the means employed by associated teachers to raise their position. They may assure themselves that their position will not be improved by intemperate zeal and overhaste, nor by disparaging remarks on the clergy and schoolmanagers. This course will most certainly produce antagonism, and more than anything besides, tend to prevent the accomplishment of the thing sought. Whatever Teachers do in this movement, should be done with more than northern prudence, and with the utmost respect to the proper authorities, both local and central.]

SIR,—A correspondent in your July number asked for a "course of religious instruction, and the methods most successful in imparting it," and, as I see no reply to his request in your present number, I send you the course followed in this school; which is divided into six classes—the lowest, or sixth, containing about 40 children, from 3½ to 7 years of age—the highest, or 1st, comprising 30 boys from 10 to 16. I add this that your correspondent may form some idea of the class of children to whom the annexed lessons are given.

6th Class.

Gallery Lesson on the Life of Christ—given collectively with 5th class.
Explanatory Lesson on the Lord's Prayer— ditto ditto, Mondays and Thursdays

5th Class.

Collective Lessons with 6th class, as above.
Sunday School Primer, reading lesson, from 10 to 10.30 every day.

4th Class.

Gallery Lesson on Catechism, collectively with 3rd class, Tuesdays and Thursdays.
Ten Commandments and Belief, committed to memory, Mondays and Thursdays.
Parables, reading lesson, from 10 to 10.30 every day.

3rd Class.

Gallery Lessons, as above.
Church Catechism, except sacraments, committed to memory, Mondays and Thursdays.
Central School Book, No. 3—reading lesson—Tuesdays and Fridays.
Miracles—reading lesson—from 10 to 10.30 every day.
Text to prove Catechism—*learnt at home*, every evening.

2nd Class.

Gospel of Mark, collectively with 1st class, from 10 to 10 30 every day.
Mrs. Trimmer's Scripture Lesson on Old Testament—reading lesson—Mondays & Thurs.
Church Catechism—committed to memory—Mondays and Thursdays.
Text as above.

1st Class.

Gospel of Mark, as above.
Scripture Biography Lessons, Tuesdays and Fridays, afternoons.
Church Articles, Mondays.—Liturgy, Thursdays.
Text, as above.

As to methods, perhaps, a short sketch of the manner in which the lessons are conducted will convey the clearest idea of them, preluding, by the way, that I have the same maxim as regards giving ideas to children, as I have in driving nails—"One at a time, and clench it."

In reading the Gospel of St. Mark, such a portion of the chapter is taken for the lesson as contains *but one* moral or prophetical truth; it may be 20 verses, or it may be but two. This portion is read by the class two or three times round, and during the last reading I explain any difficulty occurring in it. Then, with books open, I question them on the events narrated. After this they close their books, and I picture out the whole in such a manner as to bring forward most prominently that particular truth or action from which I wish them to deduce the moral of the lesson;—if I succeed in my "summing up," as it were, the boys readily give me the right moral; if they do not, then I know I have failed. Lastly, we apply the moral to every-day life. In this manner we read last year the books of Judges, Acts, and Hebrews. Moreover, every Friday evening they have a set of questions on the parts read during the week, and bring answers to them written on their slates every Monday morning.

The biographical Scripture lessons are conducted by the Pupil-teacher. The boys do not read the portions aloud; but, with books open, silently study the part containing the character under consideration, in order that they may be able to answer the questions proposed by the teacher.

In the 2nd class, however, Mrs. Trimmer's lessons are read round aloud once or twice before the questioning commences. In the 3rd and 4th classes the teachers finish their lessons on the miracles and parables by the time I have finished my lesson on St. Mark's Gospel, then I examine their classes, and add any remarks necessary to complete the lessons.

Before any portion of the catechism is committed to memory it is treated exactly as a reading lesson. Hard words are syllabized and explained and sentences are properly emphasized; consequently the lads are able, ever after, to repeat it slowly and distinctly.

In explanatory collective lessons on the catechism I never take more at a time than *one* sentence in the Lord's Prayer or Belief, or *one* of the commandments, it takes me all my time (half an hour) to explain the simplest sentence in the Lord's Prayer, and I can assure your correspondent that the most difficult lesson I ever undertook in my life was the petition, "Thy kingdom come."

Perhaps some may object to taking texts home at night, but I find it a most beneficial plan indeed; besides the text, my boys take home spelling, roots, geography, tables and grammar every night, and repeat their lessons next morning. This is done because I believe the memory to be the most active faculty in childhood; one of the most valuable, and consequently one to be worked upon in a corresponding ratio. NESCIUS.

GOVERNMENT PENSIONS.

SIR,—Along with many others, I hailed the Minutes of 1846 as a great boon to the elementary schoolmaster, believing them eminently calculated to improve the condition of the teacher and place him in that position to which his great responsibilities and heavy labours entitle him, and when he became advanced in years, or was disabled by accident from following his profession, the prospect of a retiring pension was calculated to cheer him in his labours, and urge him to exert himself to the utmost extent of his power in the noble cause in which he is engaged.

In the Minutes it was proposed to bestow a retiring pension of a sum "not exceeding two-thirds of his salary and emoluments" on the schoolmaster who had taught at least 15 years, and had been 7 years under inspection; so that if a man's salary had been £90 or £100 a-year, he might look forward to a provision in old age of some £50 per annum. This, in addition to what might be obtained by other means, would enable him to *maintain* a respectable standing in society.

By the recent statement, it appears that the *number* of these pensions is limited, and the *amount* to be granted very small, ranging from a minimum of £20 to a maximum of £30, and that even these small sums are liable to be withdrawn if the receiver become able after obtaining it, to maintain himself without it; thus, *inflicting a fine on an industrious man*, and encouraging the idle.

The common soldier, after a certain number of years' service, is rewarded with a pension that is not liable to be withdrawn if he be able to maintain himself, and the sum awarded to him is equal to the smaller sum bestowed on the schoolmaster. But he has opportunities of rising in his professson, and of receiving a sum per annum as retiring pay, much greater than that given to the schoolmaster, and this he can *claim*, whatever may be the *number* of claimants at any time after he has served his term. By a comparison of the two, I think it is clear to any one that the schoolmaster is placed in a position inferior to that of the common soldier in many respects. There would be much more propriety in ranking him with the exciseman.

I have been engaged nearly 20 years as a public schoolmaster, have worked very hard during that time, and am now much the worse for wear. My salary and emoluments from certificates, &c., are entirely swallowed up in supporting a large family, and in insuring my life for their benefit, so that I am unable to save anything for old age: and when I look forward to a *precarious* 20 or 30 pounds, and no certainty, whatever may be one's need, of obtaining even that, I must own that a feeling of disappointment arises on comparing the *promises* with the *performances* of the Committee of Council on Education.

If you can find space for the foregoing remarks in your valuable little periodical, you will oblige,

W. A.

SIR,—I can fully enter into the feelings of my brother teacher, who complains, and justly too, of an evil which prevails to a great extent, and one which is the source of no small amount of annoyance and discouragement to the teacher, viz., "the insults and derision of the children and men among whom we labor."

Having had to encounter the painful derision of which he speaks, I would lay before him my mode of procedure. At first I endeavoured to appear indifferent, but finding that did not have the desired effect, I went to the insulting parties, and mildly remonstrated with them on the painfulness and wickedness of such a course; this brought me fresh abuse; I threatened, that was only adding coal to the fire; I was now perplexed, not knowing what to do, till a friend suggested that the matter should be treated as the good king did his—lay it before the Lord: trusting in the words of that book which says, "When a man's ways please the Lord, he maketh even his enemies to be at peace with him," and am happy to say that I can now go to and from work with that respect which is due to those whose motive and aim is the improvement and good of their fellow creatures.

S. J. C.

SIR,—I reply to your correspondent, T. C.'s letter in your August "Papers," I must confess that I feel somewhat surprised to find that any one of the present race of National Schoolmasters should have to brook such ribald insults as "T. C." complains of. It would be improper for me to say that such cannot be the case, for I remember too well a precedent in my own native village, when I was a school-boy. He was one of the old style of Pedagogue who delighted more in "currying the hides" of his pupils, as he used to call flogging, than in trying to "soften their manners and suffer them not to become brutal." But I was in hopes that all that sort of rudeness had died away.

I, having had 13 years' experience in the office of National Schoolmaster, would suggest that T. C. endeavour by kind treatment to win the affections of his pupils, and this being effected, the esteem of the parents follows next in the train, then the two parties uniting in favour of the teacher, soon diffuse around and implant that degree of respect in others so common at the present day for every right-acting schoolmaster.

J. S.

SIR,—I am now engaged in a school where are four pupil-teachers, all in different stages of their apprenticeship, and find much difficulty in teaching them without encroaching unduly on their time, as well as my own. The difficulty is greater to me as I have never had pupil-teachers in *different* stages before.

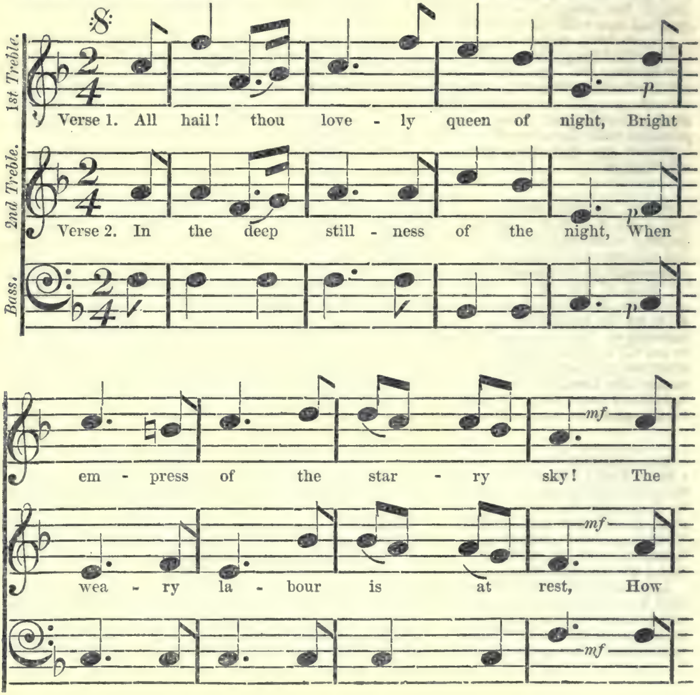
Will you favour me by endeavouring to elicit from your correspondents, in the next "Papers for the Schoolmaster," such information as might be useful in my case; or be kind enough to direct my attention to a source whence I might obtain it? B. W.

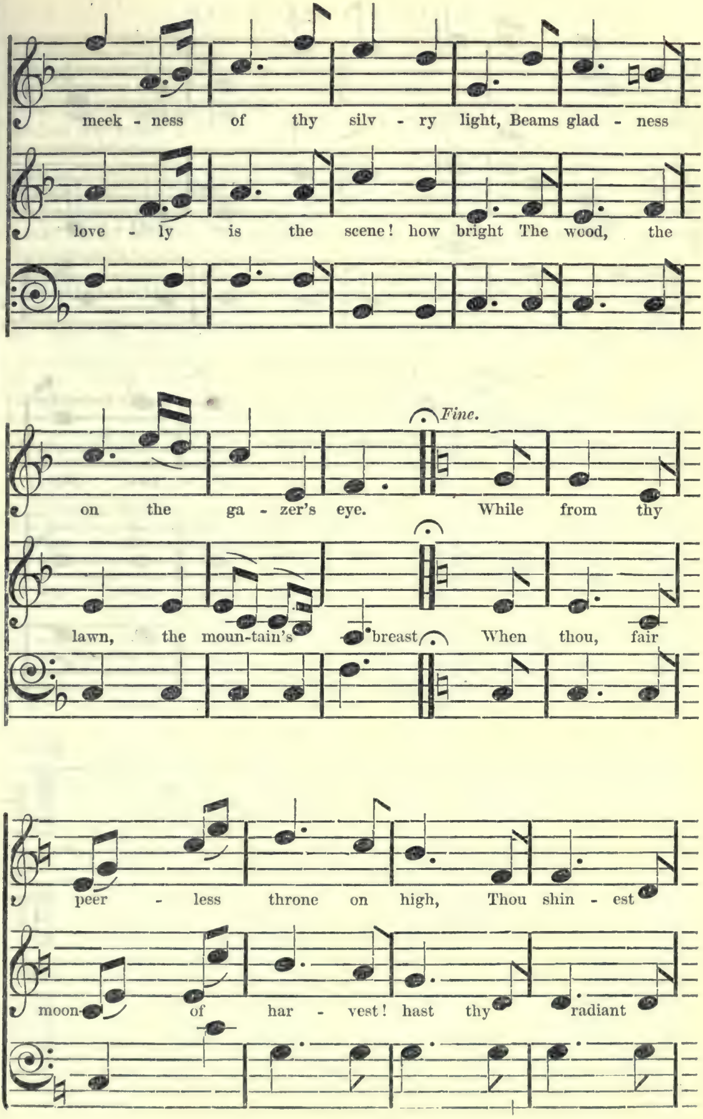
[In reply to A Guardian. The rule is for pupil-teachers to find their own text-books, which, with a little management on the part of the master, they are enabled to do from the Government grant at a very reduced price. There are, however, cases in which the managers pay a part, and others in which an occasional present is made to the apprentice of a book or two connected with his course of study. Where this is done, it is, of course, quite an act of grace on the part of the school authorities.

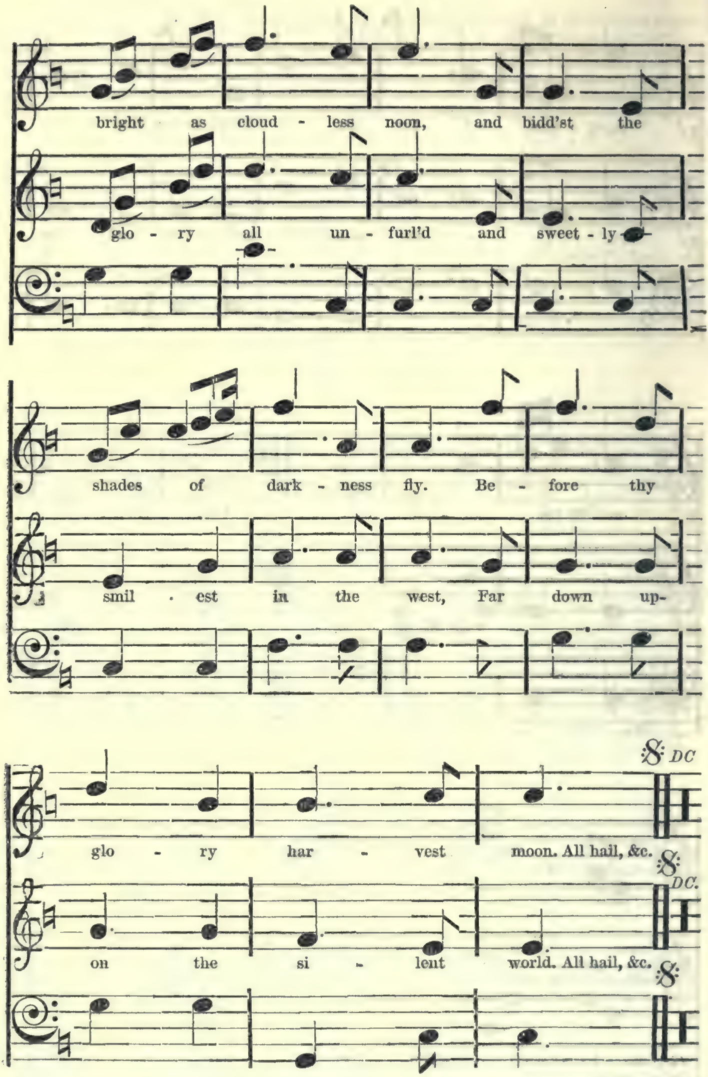
J. C. K. will find a work on the Science of Common Things on the Tract Society's List; on Natural History, at any booksellers, at any price; on Emblems, &c., Stow's Bible Training; and on Physical Science, the work bearing that title published by the Scottish School-Book Association.]

The Harvest Moon.

Poetry by THOMAS MILLER. *Music by* HENRY ROE.


1st Treble.
2nd Treble.
Bass.
Verse 1. All hail! thou love - ly queen of night, Bright em - press of the star - ry sky! The
Verse 2. In the deep still - ness of the night, When wea - ry la - bour is at rest, How
p
mf


meek - ness of thy silv - ry light, Beams glad - ness
love - ly is the scene! how bright The wood, the
on the ga - zer's eye.
Fine.
While from thy
lawn, the moun-tain's breast
When thou, fair
peer - less throne on high, Thou shin - est
moon- of har - vest! hast thy radiant


bright as cloud - less noon, and bidd'st the
glo - ry all un - furl'd and sweet - ly
shades of dark - ness fly. Be - fore thy
smil - est in the west, Far down up-
glo - ry har - vest moon. All hail, &c.
on the si - lent world. All hail, &c.
DC
DC.

NOTICES OF BOOKS.

Robson's Arithmetical Exercises.—First Series.—Whittaker and Co.—No one feature, as it appears to us, is so striking in the school-practice of the present time, as the re-action in favour of modes of instruction, which but lately were deemed antiquated and useless. In reference to Arithmetic, the demand, for the last few years, has been for principles—for grouping the children in masses, and making a large use of the black board. Teachers without examining the question, rushed at once to collective instruction, and occupied most of the hour allotted to arithmetic with lectures on principles. That principles should be taught, few will deny; the error lay in allowing principles to supersede, or nearly so, the practice. It was at length discovered that arithmetic was one of those subjects to which the old adage, "Practice makes perfect" was applicable, and thenceforth teachers' wits were at work how to combine the collective with the individual modes, so that whilst collective instruction should be given in the principles, there should besides be individual effort. To secure the latter the Arithmetical Cards have been introduced with great success. The chances of evasion when they are employed are few, each boy has his own card, and as each is different, copying cannot exist. Mr. Robson's First Series contains three hundred and twenty-eight exercises, on the first four rules; printed on ninety-two cards. The examples are of the right kind, and the figures of that character which fits them for good models. The answers to all the exercises are given on a separate sheet, the cards can therefore be worked by a juvenile sub-ordinate, while the master is employed in work more suited to his position. We can with confidence recommend Robson's Arithmetical cal Exercises, as we have tested the value of this method of instruction in arithmetical

Hogg's Instructor.—New Series.—Groombridge and Sons.—This serial we observe is "under the Special Patronage of her Majesty the Queen," its reputation is therefore established. It combines the two great requisites of a popular monthly—quantity and quality; we do not remember seeing before this combination so complete and so well sustained. Ninty-six double-paged columns, containing original matter, much of it of sterling merit—solid, healthy nutriment, fitted alike to strengthen the mental powers, and purify and elevate the affections. The "Marine Officer's Memoranda" is, however, a kind of writing to which we strongly object. We do not like humour based on impropriety of conduct, or a misapplication of things sacred; neither do we see justice in writing down a class on account of the infirmities of some of its members. Perhaps it did not enter the writer's mind to do either, it is done nevertheless; and many of the young and thoughtless; will relish extremely Dr. Bumblepuppy's being set fast over his port, on a question of personal election, as well as the ecstasies of the grandfather, that Maurice could so "pose the parson." Lasting injury is inflicted on young people by fictions of this character; parsons and pedagogues become to them, fair game, and hence are shorn of that respect so absolutely necessary to the success of their professional functions. We may be thought a little fastidious on this matter; we, however, quarrel not with the thing humour, but the mode, and this not from any excess of puritanism, but from a certainty of its evil consequences.

De Quincey's paper on "How to write English," will be read by Teachers with great interest, as the production of one of the masters of the English language. With a profound conviction of the power of cheap literature, as an element in popular education, we hail every attempt to supply healthy aliment, and rejoice to know that another periodical of good character is established, such as we take the "Instructor" to be, with the exception to which we have drawn attention.

Examination Paper for Pupil Teachers.

(GIRLS) 1ST YEAR.

1. Write out what you can of the history of Joshua, Gideon, Josiah, or Hezekiah.

2. Write out the second table of the Ten Commandments. and show what portions of your duty towards your neighbour refer to each of them.

3. Explain the terms—"Member of Christ, child of God, inheritor of the kingdom of Heaven."

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1. Give a list of aliquot parts of a cwt.

2. Find the value of 3,227 articles at 4s. 7½d. a piece.

3. Find the value of 7 cwt. 3 qrs. 8 lbs., at £2 7s. 7d. per cwt.

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1. What is a noun? How many cases have nouns in the English language, and what are they?

2. What are the plurals of the following nouns:—Brother, sister, child, deer, fish, galley, penny, staff, woman, beau?

3. In what respect must a relative agree with its antecedent? Give examples?

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1. Name the three principal divisions of Great Britain, with their relative positions and boundaries.

2. In what counties respectively are Hastings, Hythe, Marlborough, Launceston, Totness, Bradford, Newcastle, Glasgow, Berwick, Cardiff, and Dolgelly?

3. Describe the boundaries of Palestine.

SECOND YEAR.

1. Mention some of our Lord's precepts with respect to alms-giving, prayer, forgiveness of injuries, humility, energy in the discharge of duty.

2. In commemoration of what events is each of the following days appointed by the Church to be kept holy:—The Annunciation, the Epiphany, Innocents' Day, Good Friday, and Whitsunday?

3. Explain the parable of the Sower as you would to children.

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1. If 7 yards of calico cost 3s. 2d., what will 365 yards cost?

2. If 6 women can do a piece of work in 13 days, how long will it occupy 11 women? Explain fully the working of this sum.

3. If 20 acres of grass be mown by 3 men in 7 days, how long will 5 men be occupied in mowing 74 acres?

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1. What is meant by tense? Give the past tenses of the following verbs:—Speak, write, eat, hit, fly, begun, bereave, beseech, destroyed.

2. Name the principal auxiliary verbs, explain their use, and illustrate it by examples.

3. What is apposition? State the rule in grammar as to nouns in apposition.

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1. Draw a skeleton map of England, south of the Thames and Severn; insert in it the principal rivers and hills, and mark the exact positions of Truro, Plymouth, Tiverton, Bridgewater, Southampton, Arundal, Chatham, and Dover.

2. Name in order all the European countries that border upon the Mediterranean.

3. What were the principal divisions of Palestine at the birth of Christ? Name the chief city of each and their relative positions.

PAPERS FOR THE SCHOOLMASTER.

No. 32. OCTOBER 1, 1853.

The New Supplementary Minute.

We have presented to our readers a copy of the above important Minute, the object of which will be to extend and develope the original Minutes of 1846. The Committee of Council on Education have taken a very comprehensive view of the working of the present scheme, and have vigorously adopted measures to correct its practical evils and to supply its defects. The Supplementary Minute grapples with the threefold object of

(1) Rewarding practical ability in teaching;
(2) Encouraging successful Pupil-teachers;
(3) Assisting Normal Schools or Colleges.

In reference to the first object it is proposed to postpone the assignment of a certificate to any student until he shall have been in possession of a school for two years, although he may receive a certain augmentation of stipend as at present.

The most important regulation is that which removes the existing limitation placed upon the number of Queen's Scholars. At present, a most painful uncertainty attaches to the choice of a Normal School or College, as soon as an apprentice has completed his term of apprenticeship. He may select one where the number of candidates happens to be very large and the vacancies few, and, at all events, the question he is called upon to answer is not, "where will my studies be best completed, or my religious teaching be most in accordance with my earlier convictions, or my convenience in regard to locality, be most consulted; but where, be it near my home, or 200 miles off, are my greatest *chances* of succeeding to a vacant scholarship?" The chance which allotted Scholarships to the fortunate instead of the meritorious, will now be removed, and the candidate has simply to consult his friends and the managers of his school, as to where he can complete that preparation which shall fit him for the important and holy office of a teacher and trainer of children.

A list of Candidates for Queen's Scholarships will be published soon after the examination, containing as many names in order of merit, as correspond to the number of vacancies in all the Training Schools together. The only limit, therefore, will be the amount of accommodation in these Training Institutions.

It will also be observed that Assistant Masters, who have been formerly Pupil-teachers, in conformity with the Minute of July 23, 1852, become *entitled,* without further examination, to a Queen's Scholarships of £25, who have filled this temporary office creditably to their employers. (See section 7).

An important advantage is held out to Masters and Mistresses distinguished for practical skill in contradistinction to Scholarship. It not unfrequently happens that Masters now ranking in the first-class are reported by the Inspectors as third-class *Teachers,* while many of our first-rate Teachers are found registered in the lowest division of the class-list. The new arrangement will make a *Certificate of Merit* what its name really imports, a testimony to professional excellence, rather than, what it has been too exclusively, a certificate of merely scientific attainments.

We observe, too, in the augmentation of salary offered to Lecturers attached to Normal Institutions, upon such subjects as the physical sciences, an increased encouragement to the study of things associated with every-day life. We are strongly of opinion that Education in all classes of society should not only be such as will enable the educated to apply what he knows hereafter, but such as teaches and obliges him to apply it, while he is still at school. Experience shews to us that a boy compelled to study Thucydides and Sallust at school will not necessarily in after life take to Modern History; nor the student who has been drilled in pure Mathematics, delight himself, as a matter of course, in Chemistry or Geology. Certainly a great point will be gained, if the artisan, and even labourer can be taught, one intelligently to connect his handywork with the principles of mechanical philosophy, and the other to distinguish between the properties of mineral and vegetable manures. Observation thus quickened might redeem his mind from the stupefying consequences of merely manual labour, and assuredly his services would be no less valuable to his employer, as a builder of a house, or tiller of the soil.

The School, the Farm, and the Factory.

The schoolmaster, on entering upon his duties, finds himself not unusually in one or other of two fields of work of a character totally distinct. Placed in an agricultural district, he has but a faint conception of the position of some friend or fellow-student, who is following his vocation in the heart of one of our larger towns, or in one of our manufacturing counties. With schools composed of widely different materials, the difficulties which each has to encounter are as opposite, as the success, which each would anticipate and may attain, differs both in its nature and degree. The scholars of the one teacher are employed in the production of food, or as we may designate it, in the employment of the farms; of the other, in the fabrication of the various articles, which supply the wants of civilization, in what we may term in a general sense the employments of the "factory." A type of the one description of school is to be met with in every country village; a type of the other, most of our towns can supply. The manufactures of England are so various and extensive, that although certain branches of them may be all but exclusively located within certain limits, a large remainder is spread over the whole country, in the various towns, which, in the language of geographical text-books, they have severally rendered "famous." Exceptions among our towns undoubtedly exist, in which the labour of the inhabitants is neither to any great extent concentrated or collective, and which have consequently but little of the "factory" influence visible in their schools; which are on the other hand, rather more open to influence, operating most powerfully in districts purely agricultural. It is only when human labour is brought upon a large scale into connection with the systematic and untiring efforts of machinery, that any perceptible effect is produced upon the child-portion of any given population; but that this is by no means unfrequent, a slight consideration of the employments of our town populations will serve to convince. The "works," the "mill," or the "factory," will be found to have widely extended "local habitations," and by no means dissimilar influences, though by "many names men call them, in many lands they dwell."

The employments of the farm, and the factory, are neither of them in their unrestricted, unmitigated influences, beneficial to the school. The business of the farm, in its mere routine and occupation of time, is inimical to successful school-keeping; and there are but few teachers whose scholars are employed in agriculture, who do not feelingly complain of the diminution at certain seasons in the numbers of their school attendance. A thin muster of scholars is readily accounted for by the country teachers from the counteracting influence of one of his three enemies—the "hay," the "harvest," or the "potatoes." Apart from these deductions from their time, the not unfrequent employments of his scholars are by no means the best preparatives of a school exertion, or calculated to enable them to benefit by the modicum of "schooling" which they may obtain. Physically fatiguing. they are by no means mentally stimulating. It has been averred by every reciter of Gray's Elegy that the "ploughman homeward plods his weary way," and the boy's labours who leads the team, whatever may be its effect upon surface or subsoil, is not, we imagine, ordinarily productive of many "furrows of thought"; and we doubt whether "crow-keeping," though not so laborious a pursuit, does not tend to produce a nomade disposition ill-disposed for the comparative restraint of school civilization. The farm, with its heavy toil, its too often coarse recreation, and its lack of necessity for mental exertion has as strong a tendency to animalize, as the factory may have to "merchandise," its workers. To look on another picture. The days are happily past when the child of the cotton factory could define its weary little existence as consisting of "mill and bed, mill and bed." Legislative enactments have decided it a certain amount of time for the purposes of education, have defined its quantity, though they have still left its quality optional. But as yet, no strong arm of the law has interfered on behalf of the many little ones who toil the live-long day without a spare hour for training or instruction—moral, intellectual, or religious—save such as may be deducted from their already curtailed hours of rest. From one huge pile of building pours at certain hours into the school-room a stream of children whose absence is punishable by legal pain and penalty; beside it may stand another pile equally as large, employing fully as great a number of juvneile workers, of age fully as tender, but which bids them leave all hope of education behind them as they enter its portals, for that the State has not concerned itself with their wants, but only legislates for their neighbours. We leave the one manufacturer to question how justly the State may interfere with his "lawful gains," by debarring him from an advantage which it allows another, namely, using his "child-power" to its utmost capability, hardly wondering at his feelings, though we cannot afford them our sympathy. Happily, nevertheless, there are many large employers who liberally and effectively supply to the children in their service those educational opportunities and advantages which the State has not has yet seen it wise to make universally imperative. Notwithstanding, the early employment in manufactures is the great evil which operates against schools in their neighbourhood. The interference of the law in the matter of semi-compulsory education cannot at present be described as other than partial, and even within its present limits not altogether effectual. The child, whose future occupation is to be within the mill, not unfrequently remains utterly untaught, up to the time of its entrance. School must commence contemporaneously with mill-work, so that any previous attendance is here perfectly supererogatory. Perhaps were a certain standard of knowledge made a necessary antecedent to any such occupation, in addition to the provision of a fixed period for its acquisition during its continuance, the results might be found beneficial; and were all schools, in which such education is carried on, necessarily subject to the supervision and approbation of Her Majesty's Inspectors, it might tend to the fulfilment of the spirit as well as of the letter of the law. It is, however, the practical wisdom of the schoolmaster, having fairly considered the difficulties of his position, and the obstacles which oppose the progress of education, to consider how best, by his own exertions, to meet and counteract them, rather than to deliberate on the want or the wisdom of educational legislation. Should any change in its nature or extension of its limits be deemed wise or necessary by those in whose hands it rests, he may be assured that he will not have been altogether inoperative in its production, if by the example of the benefit of a well-worked school he has been exerting in his sphere a quiet influence as that mighty engine, "Public Opinion."

The great obstacles, both in an agricultural or manufacturing district, to the success of the schoolmaster, are the total absence of a large number of children, who, if their age or ignorance formed a test, should be within his walls, or the desultory attendance of those whose names are on his school books. The blame may rest in varying proportions upon the parents or upon the school. The labour of the child produces money, and the parent, himself uneducated, sets down the earnings as clear profit, the school-pence as clear a loss. But in many cases, it is not a need of its little gains which causes the parent to introduce the child thus early into a field of labour; he views the alternation of employment or school as a question of industry or idleness, and could the education proffered be shewn to be intrinsically valuable, he would not hesitate to refer it to the gains of labour. It must be the endeavour of the schoolmaster to show daily the preponderating value of education. In cases in which child-labour is indispensable to the processes of manufacture, legislation may take heed that the busy spirit of trade be not too insatiable in its demands; it may enforce an equivalent of education for an equivalent of work, but the absence of the one element renders impossible the compulsory introduction of the other. Education so fostered would stand less in need of legislative "protection." The advancing introduction of an education, more practical in its nature, is a sign of hopeful progress. The introduction of fit and scientific knowledge into our schools is a token that they are becoming more and more calculated to supply the real wants of those for whose benefit they are intended; and the more this becomes evident, the better will they be appreciated. The parent will discover that school after all is something better than a place for keeping a child out of harm's way, and each successive instance of a boy thus educated becoming an intelligent labourer or a skilled artisan will be an additional evidence that the money expended during the school period was far from an unprofitable investment for after life. In this way, the schoolmaster has his cause very much in his own hands: if the factory or the farm do contest with him the possession of his children, let him shew practically that the school is an invaluable preparation for either;—let him with his school-garden, his agricultural chemistry, his scientific knowledge, or his art-education, fight his enemies with their own weapons. If he could check the progress of the spreading malady, let his remedy be of the nature of a counterirritant, or rest if he will, on the formula that "like causes like," and if we mistake not, met in this spirit, the unavoidable claim of the farms or the factory, in place of being injurious, would be found conducive to the well-being of the school, which would have acquired a character for practical education suit able for the future employments of life.

M. U. R.

Notes of Lectures delivered to a Normal Class.

LECTURE II.—EDUCATION.

I.—Importance of the Study of Education as a Science.

Notwithstanding the attention which the subject of education has received of late years in some quarters, there is an amount of indifference to the science of education amongst teachers themselves which we should look for in vain in any other profession. Many scarcely give it a thought, while others, whose circumstances compel them to bestow some attention to it, regard the time so spent as lost from more valuable or more interesting pursuits.

Nor is it difficult to account for this indifference on the part of those who are supposed by many to be the only parties with whom education practically rests. On the one hand, there is an almost general prevalence of the notion, that a teacher has no more to do than instruct in the arts of reading, writing, and arithmetic. The majority of parents *desire* no more, and think in fact that anything else is a positive waste of time. This demand for instruction only has caused some teachers to think that this is their only province, while others, with more enlightened views, aim at no higher results, because to do so would damage their pecuniary interests by reducing the number of their children.

On the other hand, the authors of works on education—works written by men who have had no practical connection with elementary schools—may have promoted this indifference, by making no distinction between the objects and aims of general education, and the peculiar province of the schoolmaster. *Their* treatment of the subject has made the schoolmaster the only educator, whereas he is one amongst many; the school-life the only period, when in fact it is but a small portion of it; and education in the school-room complete, when it began long before entrance on school, is continued at home and in the streets, and is carried on after the connection with the school-room is terminated.

That the schoolmaster is more than a teacher must be evident to all who will bestow a thought on the subject. Whether he wills it or not, he cannot but be an instrument in the formation of the habits and character of those committed to him. It must also be evident that as children are away from parental control and direction when under his care, it becomes his *duty* to educate. What he has to determine is the extent to which he is responsible, or, in other words, what are the elements in the school education of a child. To this question we intend shortly to direct your attention, when we hope to mark out what is peculiarly the province of the schoolmaster in the education of the young. But previous to this, and as preparatory to it, we would urge upon you the study of education—both the science and the art.

As you cannot help but educate, and as you cannot throw off the responsibility to educate, it is of the highest moment that you educate *rightly*. Then let me press upon you that it is unworthy of you to suppose—as many do—that the study of, or an extensive acquaintance with, such subjects as grammar, geography and history, arithmetic, algebra, and trigonometry, fit you to become educators. As well might you expect to practise surgery successfully, from being made acquainted with surgical instruments, as to expect to educate successfully because you have an acquaintance with some of the instruments of education. As the surgeon has to study the anatomy of the body before he can use his instrument aright, so must you make man your study before you can educate aright.

Your future success, as educators, will depend on the extent of your knowledge of the science, and on your skill in the art of education. Success in this, as in any other pursuit, cannot be realized, if the acquaintance with it be limited, or the skill imperfect. Nor is such acquaintance to be obtained without arduous and lengthened study. The man who would become a successful physician must give years of toil to the investigation of subjects of health and disease, and of the nature and operation of the remedies he is to employ. The gardener does not acquire skill without much previous study of plants, combined with the practice of his art. "The trainers of horses and dogs leave nothing to hazard, but study with the utmost care the distinguishing qualities of the animals, and apply the best treatment to those qualities."

The result of this careful and arduous study of the objects on which they have to operate is seen in the certainty with which they anticipate the results of their practice. The physician knows—as certainly as if he witnessed it—the course through which the medicine he prescribes passes. The gardener as confidently expects certain results of his labours, as if they were already realized. And why should it not be the same in education? Why should not the results be as certain with the whole man as with a part, in the hands of the teacher as in those of a physician? Such results cannot be obtained till the *study of man, and of the means of developing and cultivating all his faculties, and of forming his character aright,* takes precedence of all other subjects, as well in the schoolmaster's closet as in the Training College class-room. Till then, you can never be more than empirics in education, and must be content to be, in your profession, inferior to the trainers of horses and dogs.

Closely connected with our present subject, is a rumour which we hope will prove true—that the Government intends in future to place this subject before all others in the examination for certificates; but—as the whole question of school education in this country in our opinion is involved in it—never will it occupy its right place, till a knowledge of the science, and skill in the art, of education, are the only grounds on which certificates are awarded.*

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* Our readers will see from another place in our present issue that the conviction expressed in the above article, which was written for insertion in our July number, has at length forced itself on the Government.

What is Style?

Is a question which, we are bold to say, in some form or other, perplexes the mind of everyone who first attempts to convey thought to others in an explicit form. We feel that ideas may be expressed in various ways, that things may not only be contemplated from various points of view, but that, under the same aspect, they may be differently represented. We at once recognize a distinction of this nature as existing in others, and are sensible of its influence, even when least able to analyse our impressions. Whence then does this difference arise. What rules are we insensibly applying, when, judging of that distinctiveness of manner, which we call style, we pronounce it good or imperfect, satisfying to the mind or disappointing? By what art, moreover, or what practice, can we learn to shape our own expression, so as best to attain the end of all writing, the communication of our ideas, the "counterfeit presentment" of the thought within us? These questions we shall attempt, in some measure, to solve.

No subject has been more perplexed than this by the assertion of arbitrary rules, the results, in most cases, of premature generalization from partial data. We are cautioned against the use of long sentences, of parenthetical periods, of common-place expressions; advised to keep our most important words back to the last; to give the preference to words of Saxon origin; to study conciseness, perspicuity, harmony. We are recommended to give our days and nights to Addison, to Goldsmith, to other "wells of pure English undefiled." Now, without asserting that no benefit will result from attention to these rules, even allowing that each and all of them may be good, we affirm that they afford an insufficient answer to the question—Upon what principle does a good style rest?

It is, by this time, a well-worn truism that rules of Grammar do not precede, but are derived from correct forms of speaking; it has not been so clearly understood that good writing has been, as necessarily, the predecessor of all rules of Composition. As many a man speaks correctly who is profoundly ignorant of the grammarian's most elementary definitions, so it is equally possible to write well and forcibly to a man who is unable to instance a single rule in support of his excellence. There must be, therefore, some principle upon which, whether he know it or not, he is proceeding, lying deeper than all technical rules, and no other than the generalization of them all, as they are, in so far as they are correct, but the generalization of a particular class of the phœnomena of effective writing.

Let us consider what is the end and object of writing. It is, as we before stated, the representation of ideas. The means at our disposal, as the instrument of communication, is language. Words are the accredited signs or symbols of ideas, as sentences are of their combinations. The question, therefore, resolves itself into this, how we may best dispose or combine these symbols so as to represent that which they stand for, and to effect their object of reproducing this in the mind of the reader. This object may be defeated either by our employment of words which in his mind stand for other than that which we, in their use, intended, or, by our failing to combine them in such a manner that they shall reproduce that precise aspect of the idea, as it stood before us when we undertook to present it. Beyond this, imperfection of style must be the result of imperfect organization of mind. Presupposing, then, a fair knowledge of the powers and use of words, let us consider the greater difficulty of their effective combination.

A fact which has been generally lost sight of by our legislators on composition, in the arbitrary canons which we have before noticed, is that the reader's attention is an important element in the question; though we think that the canons themselves will be found, unconsciously, as it were, to recognize this principle. From habit we are insensible both of the nature and amount of the effort which the mind sustains in the process of realizing another's written conception. Some portion of that mental energy, however, which is limited in every man, must be consumed at every step of that process: in interpreting every written symbol, in arranging the images as they are presented, in conceiving the whole idea when completed. Though unobservant of this momentary waste of power, in the aggregate it makes itself felt, in the sense of fatigue which follows sustained attention. Do we not, we now ask, in judging of any style, in condemning it as wordy and involved, or praising it as clear or concise, imply the importance of economizing this energy? Regarding language as the vehicle of thought, is it not more or less perfect according as it well or ill serves its purpose of *conveying* from one mind to another? As in all machines, the power lost through friction of the parts is so much to be deducted from its efficiency.

The application of this principle will be found, we believe, to solve most of the questions which may arise as to the comparative merit of the different form or methods in which the same ideas may be communicated.

How readily the mind appreciates the saving of effort in the transfer of thought, is evident from the impatience with which we bear the detail of conceptions with which we are already familiar, and the satisfaction with which we greet an author who will recal them, when they are necessary to his purpose, by a single word, or a passing allusion. On the same grounds we all acknowledge the greater expressiveness of many mimetic signs, a shake of the head, or a finger on the lip. The mind instantly translates what, if expanded into words would occupy time and effort, and so delay the transfer of the idea. In the arrangement of clauses in a sentence, the choice of words, or their relative position, the use of metaphorical or otherwise figurative language, the same principle might be shown to influence insensibly the bias of our criticism. It is enough for us, in the present paper, to have pointed out some clue to the law which, underlying the ordinary maxims bequeathed to us for our guidance in composition, may conduct us to some intelligible principles of proceeding in the formation of a Style.

On Teaching Arithmetic.

SIMPLE INTEREST.

The terms Principal, Amount, Per cent., should be fully explained. Interest should be defined as a return made to the Capitalist for the use of money borrowed of him. Let these terms be thoroughly understood, and the working of questions under this head will present no difficulty. Division and Multiplication are the only rules necessary.

Ex. 1. *What Interest must I pay for* £1,000 *borrowed for* 4 *years, at* 5 *per cent.?*

The number of £100 in £1,000 is 10, because 1,000 divided by 100 is 10.

For each £100 I borrow, I pay .. .. £5 a year;
Therefore for £1,000, or ten hundreds .. 10 × £5, or £50,
and .. .. £50 × 4, or £200 for 4 years.

The process is plain. We must divide the sum borrowed by 100 to find the number of £100 contained in it, and then multiply by the rate per cent., and, lastly, by the number of years.

Ex. II. *What Interest and amount must I return in* 3 *years, at* 4 *per cent., for borrowing* £345 17s. 6d.?

£3.45 17 6
20
———
9.17
12
———
2.10

Dividing the sum by 100, there is—

£3	9	$2\frac{1}{10}$	
		4	
£13	16	$8\frac{2}{5}$	Interest for 1 year.
		3	
£41	10	$1\frac{1}{5}$	Interest for 3 years.
£345	17	6	
£387	7	$7\frac{1}{5}$	Amount for 3 years.

It must be shewn that to divide by 100 is to cut off two figures to the right. Then the decimal figures must be converted into shillings, and the whole number of shillings must be similarly divided by 100, and so on.

Organic Chemistry.

NO. I.

1. By this term is meant vegetable or animal Chemistry, and has to do with substances that enter into the organic structure of vegetables or animals. A leg, a nail, a leaf, an apple, milk, a seed, an elephant, or a shrimp, are subjects proper to this branch of study, and all substances derivable from them belong to Organic Chemistry.

2. Organic Substances consist chiefly of the four elements, *carbon, oxygen, hydrogen,* and *nitrogen.* The presence of the carbon and hydrogen gives them their combustibility. If we burn a straw or piece of earth on a knife over a candle, the ash that is left is the inorganic portion of it.

3. Animal food, from what has been said, must consist of organic substances or compounds, for of them our organs are constantly repaired. Some of these substances include all the four elements enumerated above, while others are destitute of the nitrogen. The former are termed the *nitrogenous,* the latter the *non-nitrogenous* constituents of food. They are likewise termed *albuminous* and *amylaceous ;* the former term being derived from *albumen,* the white of an egg; the latter from *amylum,* starch.

4. The *amylaceous* are divided into four substances, *starch* (which gives the name to the whole class) *sugar, gum,* and *lignine.* The *albuminous,* or *nitrogenous* substances have six varieties: *albumen* (which is a type of the group, and gives its name to it), *fibrine,* and *caseine,* three being vegetable and three animal.

5. Of the *amylaceous* substances, STARCH is found in all plants, but especially in cereal seeds, as *wheat, barley,* and *oats,* and in the

pea, *potato*, *arrow-root*, and *sago*. LIGNINE is the pure part of the woody fibre in plants, of which hay and straw are chiefly made up. Gun-cotton is a preparation of lignine.

6. Of the *albuminous* substances—the first, ALBUMEN is most easily examined in the white of an egg, and it occurs in a soluble state in the blood. The vegetable form of it is found in the oily seeds of plants and elsewhere. FIBRINE is also soluble in animal blood, but when separated from the living animal, begins to coagulate, as seen in clotted blood. Vegetable fibrine occurs most evidenly in gluten, which is insoluble and will be spoken of directly. CASEINE (*caseus*, cheese) occurs in the curd of milk, butter, and cream, and in pure milk it is in a state of solution. It coagulates by two means: (1) by being mixed with acid, which is the case when the milk becomes sour, i.e, when the sugar of the milk is converted into acid; and and (2) by the use of the *rennet*, a membrane of the stomach of the calf, as is well-known to farmers. Vegetable caseine is found most abundantly in podded vegetables. Legumine may be considered another name for caseine.

7. The organic substances contain not only, as has been said, the same three or four constituent elements, but they contain them in the same proportions. On this account organic substances are called isomeric (*isos*, equal, and *meros* part).

8. PLANTS are composed of the three parts, woody fibre, or lignine, starch, and gluten. Exp. If we place dough or flour in a muslin bag and dip it many times in water, or place it in a running stream, the outside water will have become milky and a portion of the flour will have remained in the muslin. The milky water has carried away the *starch*, and the *gluten* has been left behind. Woody fibre constitutes chiefly the stem, and starch chiefly occurs in the seed. From (2) it will be seen that these three substances may be considered to be composed of *carbon* and *water* (water being oxygen and hydrogen). Gluten, however, contains, in addition, sulphur and phosphorous—the latter obtained from the soil, the former from the air.

BLACK-BOARD EXERCISES ON THE PROPOSITIONS OF EUCLID.

BOOK I. PROPOSITION I.

(Given the straight line AB. drawn on the board.)

Define a straight line. Define an equilateral triangle.

What is necessary to be found before the two lines required to form a triangle with AB. can be drawn?

By what means is the situation of the point to be determined?

Give the definition of a circle.

Repeat the third postulate, and describe the circles requisite.

What instrument may be supposed admissible by this postulate?

Is it possible by mechanical means to describe a *perfect* circle?

Repeat the first postulate, and from either point of intersection of the two circles draw the straight lines required.

Tell what straight lines are proved equal by definition 15.

What are equal by axiom 1?

Is it absolutely necessary to complete the circles?

Mark the other point of intersection with the letter F, join FA, FB, and demonstrate ABF to be an equilateral triangle.

State from what definition or definitions it is to be inferred that the intersection of two circles is a point.

PROPOSITION II.

(Given the point A, and the straight line BC.)

Give definitions of a point and a line, and state whether they apply strictly to the point and line before you.

Draw the straight line AB and repeat the definition by which the first postulate becomes applicable.

Enunciate the first proposition, and describe the required triangle by its help. Rub out the superfluous lines.

Repeat the second postulate, and produce the necessary lines.

Which of the produced parts is to be made equal to BC, to fulfil the requirements of the proposition?

Show the necessity of two circles. Point out their centres, and the distances therefrom, and describe them by postulate 3.

What portion of each circle is sufficient practically?

What straight lines are demonstrated equal by definition 15?

What straight lines are proved equal by construction? By axiom 3? By axiom 1?

Construct the figure when A and C are joined, instead of A and B. When the point A is in BC. When the point A coincides with the extremity B.

Construct the figure with the equilateral triangle on the other side.

What instrument is admissible by postulate 2?

PROPOSITION III.

(Given the two straight lines, AB the greater, and C the less.)

Enunciate the second proposition, and draw AD accordingly.

Rub out the superfluous lines.

Repeat the postulate that applies to the cutting of AB.

Is the entire circle requisite?

State how this problem and the last may be simplified in practice.

Why has Euclid not adopted the readiest method?

Tell what straight lines are proved equal by definition 15. By construction. By axiom 1.

Apply this proposition to producing C, so that it may be made equal to AB.

Find, by means of this proposition, a straight line equal to the sum of two given lines.

Also find a straight line equal to the difference of two given lines.

Notes of Lessons.

[*The Editors wish it to be understood that the insertion of "Notes" from Correspondents is not to be considered as marking their approval of the Methods which may be adopted.*]

ON GUTTA-PERCHA.

I. Its growth and introduction.
II. Its chief properties and uses.

1. *Its Growth, &c.* Gutta Percha is a vegetable substance which flows or oozes from the trunk of a tree, growing in Singapore and Borneo. The

term "Gutta" signifies juice, or gum; and "Percha," is the name of the tree from which it is obtained, hence the name, "Gutta Percha," as applied to this substance, means the juice or gum of the Percha tree. This tree grows to a great size, averaging from three to six feet in the diameter of its trunk; the wood from its exuding this gum, is of a loose, spongy,and fibrous texture, and consequently is not of much use for timber; it is of a pale colour, and is marked with longitudinal lines of a deep black, which are in reality the receptacles or reservoirs of the gum. For a long time the Perch as a tree was thought to be of little use, and though it so greatly abounded in the forests of Singapore and many parts of Borneo, the only thing the natives obtained from it was an edible oil, which they extract from the fruit, and used with their food; and it is only about 10 years ago, that it first became known to Europeans.

In year 1842, when Dr. Montgomerie was assistant surgeon in the island of Singapore, his attention was attracted and his curiosity excited, by the handle of a parang or wood-chopper, which he saw in the hand of a Malay woodman, and which was made of some material he had never before seen. Upon questioning the woodman concerning it, he was informed that it could be softened, and moulded into any form, by immersing it for a time in boiling water, and that when cold it would retain the given shape, and become again hard and firm. Dr. M. on learning this, thought his discovery might procured all the information he could respecting the tree, and the sap it yielded, and sent some specimens of the Gutta Percha to England, where it soon began to be experimented upon, and applied with success to several useful purposes. Since that time it has been in great request, and several hundred tons are annually imported into this country. The mode of obtaining it, in Borneo, it is said, is to cut down the tree, strip off the bark, and collect the juice as it flows out; about twenty or thirty pounds is thus collected from each tree, but of course this mode is a very wasteful one, as the tree when cut down, is of no farther use. The natives of Singapore adopt the better plan of simply cutting notches in the bark, and collecting the juice, as it exudes from them, which process injures the tree but little. It is then prepared and moulded into large lumps, in which state it is exported.

2. *Its Properties and Uses.*

(a.) Its properties. It is very *combustible*, burning brightly like India-rubber; but it inflames only at a very high degree of heat, the heat of the atmosphere appearing to effect it but little.

It is *solid*, that is free from pores; and hence it is impervious to wet.

When heated it becomes very *adhesive*; and in its solid state is *flexible*, and to a slight extent *elastic*.

But one of its most important properties is its *durability*, being little injured by use. After it has been employed in a manufactured state, the old material may be re-modelled, as it were, and manufactured again, as at first.

It is the possession of these properties which give to this article its value, and make it so extensively useful.

(b.) In dwelling upon its numerous uses, it would be well to let the children give as many as they can, the teacher taking care to explain or describe any that may require it. Perhaps there is no other single article of use, which is applied to so many purposes as this; one in which it is very generally known is as a substitute for leather, in forming soles for shoes; it is particularly valuable in this respect, (the children might be trained to tell why,) on account of its adhesive and impervious properties, and being little affected by atmospheric heat. It is also used in making tubes for the conveyance of of water, and for this purpose it is highly valuable, as metal tubes often impregnate the water with oxides, and render it unwholesome. For speaking trumpets too, it has been

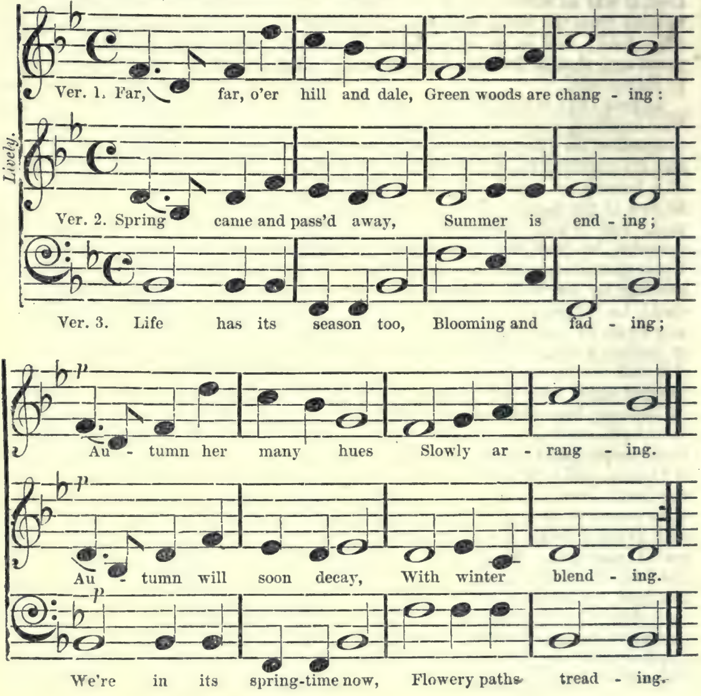
found useful, as well as for all kinds of ornamental and household furniture, such as vases, baskets, ink-stands, picture frames, &c. &c.; and it has lately been used in the shape of little shoes for sheep, to keep their feet dry, and prevent their taking the disease, to which they are so liable, when exposed to damp.

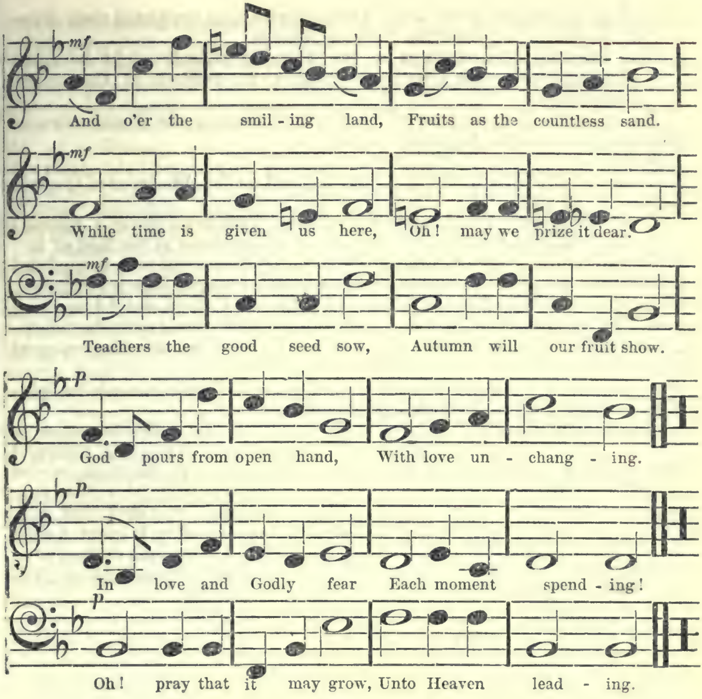
But the most important use to which it has been applied, and for which nothing else has ever been found to answer, is as a covering for the wires of the Submarine Telegraph; it being so good a non-conductor of electricity. The wires are covered with a *double* coating of gutta percha, to prevent imperfection, and make the insolution complete; this is again covered with a wrapper of yarn, and the whole is enclosed in a covering of galvanized wire; and in this way messages can be conveyed from England to France, in same way as telegraphic messages are conveyed by land.

O. M.

Autumn.

Words from Home and Colonial Collection. *Music by* J. Cross.


Lively.
p
Ver. 1. Far, far, o'er hill and dale, Green woods are chang - ing:
Au - tumn her many hues Slowly ar - rang - ing.
Ver. 2. Spring came and pass'd away, Summer is end - ing;
Au - tumn will soon decay, With winter blend - ing.
Ver. 3. Life has its season too, Blooming and fad - ing;
We're in its spring-time now, Flowery paths tread - ing.


mf
And o'er the smil - ing land, Fruits as the countless sand.
mf
While time is given us here, Oh! may we prize it dear.
mf
Teachers the good seed sow, Autumn will our fruit show.
p
God pours from open hand, With love un - chang - ing.
p
In love and Godly fear Each moment spend - ing!
p
Oh! pray that it may grow, Unto Heaven lead - ing.

Educational Intelligence.

SUPPLEMENTARY MINUTE RELATING TO QUEEN'S SCHOLARS, APPRENTICES, & CERTIFICATED TEACHERS.

At the Council Chamber, Whitehall, the 20th day of August, 1853

By the Right Honourable the Lords of the Committee of the Privy Council on Education.

Their Lordships also considered the Minutes and Instructions in force for awarding Queen's Scholarships, for issuing Certificates of Merit, and for augmenting the Salaries of the Students and other Candidates so certificated when employed as Teachers in Schools under Inspection.*

Their Lordships, having these Particulars before them, proceeded to consider certain Complaints alleged against the present System, to the Effect that,

1. Certificates are granted without sufficient Guarantees for practical Ability in Teaching, and such Ability is not sufficiently rewarded or encouraged.
2. The Training Schools are maintained inadequately, with Difficulty; are not fully occupied, nor always with the Class of Students best adapted for Training.

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* Minutes, 1850—51, Vol i. p. xvi. Ibid p. 30. Minutes, 1852—53, Vol. i. p. 67.

3. A large Proportion of the Pupil Teachers who have completed their Term of Service do not enter the Training Schools.
4. The Standard of Instruction in the Training Schools might be raised advantageously with especial Reference to the Subjects of Elementary Instruction.

5. No adequate Encouragement is offered to prolong the Continuance of Students under Training beyond a single Year.

Resolved,

1. To remove the Limitation at present imposed on the Admission of Queen's Scholars.*

1. To renew Queen's Scholarships for a Second Year to all Queen's Scholars of One Year's standing who pass a satisfactory Examination at the End of it.

3. To allow such a further Number of Queen's Scholarships to duly qualified Candidates as, with the Number reserved for the existing Queen's Scholars, shall occupy the whole of the Accommodation in each College under Inspection reported by the Principal to be unoccupied by other Students after the following Christmas. Such a Report would be called for about the Beginning of November in each Year.

Their Lordships will require to be satisfied with the Provision made for lodging and training the entire Number of Students.

4. To promote in Training Schools the Study of the Subjects proper to Elementary Instruction, their Lordships will grant Augmentations of Salary of £100 annually to such resident Lecturers as shall receive, independently of those Augmentations, Salaries of not less than £150 annually (this Sum may include an Allowance of £50 for Board and Lodging), provided that each Lecturer in respect to whom such an Augmentation of Salary is granted shall afford Evidence satisfactory to their Lordships of his Attainments in One, or at the most Two, of the Branches of Knowledge enumerated below, and of Skill in adapting them to the Purposes of Elementary Instruction.

1. History.
2. English Literature.
3. Geography.
4. Physical Science.
5. Applied Mathematics.

In judging of the Claims of Candidates for such Augmentations, their Lordships will seek the Advice of Persons eminent for their Attainments in these several Branches of Knowledge.

Their Lordships will not grant more than One such Augmentation of Salary in any Training School, when the Number of Students in residence does not exceed Thirty, nor more than Two where the Number does not exceed Sixty, nor more than Three such Augmentations in any Case.

5. An Exercise in Drawing will in future form Part of each Examination of the Students. Their Lordships will seek the Assistance of the Department of Science and Art in settling and testing this Exercise. In determining Certificates considerable Weight will be attached to Proficiency in this Art.

6. The Indentures of all Pupil Teachers apprenticed after 1st January 1854 will be made to end at Christmas; if the Examinations fall in the First Half of the Year, then at the Fifth Christmas thence ensuing; but if the Examinations fall in the Second Half of the Year, then at the Sixth Christmas thence ensuing. Thus the Indentures of all Pupil Teachers admitted in January—June

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* Total Number of Students capable of being accommodated in Training Schools under Inspection—Males, 1,143; Females, 788.

Total Number of Queen's Scholars for Year to end Christmas 1853—Males, 204; Females, 118, 1854 will expire at Christmas 1858, and of all Pupil Teachers admitted in July—December 1854 at Christmas 1859.

The annual Payments will by this Arrangement be continued up to the Date fixed for the End of the Apprenticeship, so as in all Cases to comprehend the Time of Examination for Queen's Scholarships.

As a provisional Measure, to meet the Case of Apprentices admitted before the 1st of January 1854, their Lordships will consider Recommendations by Her Majesty's Inspectors to continue the Rate of Payment for the Fifth Year during the Period to elapse between the End of that Year and the 31st of the following December; such Payments to be made as soon as the Apprentice shal have presented himself as a Candidate for a Queen's Scholarship.

In consideration of this Provision their Lordships will, after 1st January 1854, cancel so much of the Minute dated 25th July 1850 as allows Apprentices to complete for Queen's Scholarships in the course of the Fifth Year's Service.

In Schools where the Examination falls in the First Half of the Year, the Office of Pupil Teacher will be vacant during the Period between Christmas and the Date fixed for the Examination. In such Cases the Duties may be discharged by the Candidate or Candidates for the Vacancy; and my Lords will allow a Sum proportionate to the Time and to the Number of Vacancies for remunerating the Services rendered, such Sum to be distributed at the Discretion of the Managers.

In Schools where the Examination falls in the Second Half of the Year, new Pupil Teachers may be appointed, on the Report of Her Majesty's Inspectors, prospectively, to replace those whose Apprenticeship will expire at the following Christmas.

7. Their Lordships will allow, without further Examination, a Queen's Scholarship of £25 to all Assistants who shall for Three Years have acquitted themselves satisfactorily, pursuant to the Minute of 23rd July 1853. Applications for such Scholarships must be transmitted to their Lordships Secretary through the Principal of some Training School under Inspection, who is willing to receive the Applicant, from the 1st of the following January, as One of the Queen's Scholars then to be allowed.

8. In Schools where the average Attendance exceeds 100, their Lordships will apply the Minute of 23d July 1852, without requiring that an Assistant shall be taken to be in lieu of Two Pupil Teachers. In such Schools their Lordships will allow One Assistant Teacher, in addition to One Pupil Teacher, for every 100 Children.

9. In Schools under certificated Teachers, where Apprentices have obtained Queen's Scholarships, their Lordships will, on the Recommendation of Her Majesty's Inspector, consider the Propriety of allowing a larger Number of Pupil Teachers than in other Schools.

10. The Examinations of the Candidates for Queen's Scholarships will be separated from that of the students, being held for Three Days in the Week preceding that in which the Students' Examination is to begin. As many qualified Students? Candidates will be nominated (in the Order of Merit) as answer to the total Number of Vacancies in all the Training Schools. The whole Number will be comprised in a single List, and each Queen's Scholar so nominated will be at liberty to go to any of the Training Schools under Inspection, the Authorities of which may consent to receive him. The Principal of each Training School will be called upon to make a Return to their Lordships of the Names of his Queen's Scholars for the ensuing Year within Twenty-one Days after the Date of publishing the List.

11. The Students in residence will be classed at the End of each Year

according to the Result of the Examinations passed by them, but will not be certificated. No Certificate of Merit as a Teacher will, after the Examinations in December 1853, be granted to the Student of a Training School until he shall have been for Two Years in charge of the same Elementary School, and shall have been twice reported on as the Teacher of it by Her Majesty's Inspector. Whether he is to be entitled to a Certificate or not, and of what Class, is to be determined by the Tenor of those Reports, and by the Result of his Examination previous to quitting the Training School. If the First Report be favourable, he will be paid for the First Year on the Scale of the lowest Class. If the Second Report be favourable, his Augmentation and Class of Certificate will be fixed for the next Five Years. After which Interval, and so on from Time to Time, the Certificate and Augmentation will be open to Revision, according to the Character of the intermediate Reports. The Value of the Certificate will not be fixed in the first instance higher than the First Division of the Third Class for any Student who shall have resided less than One Year and a Half (see following Section) at a Training School under Inspection.

12. The Grants of £20, £25, and £30, now made to each Training School, according to the Class obtained by the Students in the Examination, will, after Christmas 1853, be made on account of those Students only who shall have completed a Second Year's Residence.

In order, however, to meet the Case of those Training Schools which may not immediately be able to adapt their System to a Course of Two Years, and in which Her Majesty's Inspectors shall report that the Theory and Practice of Teaching are efficiently imparted, according to the most approved Methods, and with all the requisite Appliances, their Lordships will, as a provisional Measure, grant £10 to the College for every Student who, having resided One full Year, and being classed in the Examination at the End of it, shall continue in residence for Six Months longer, and during that Time shall attend exclusively to such Theory and Practice, provided that Her Majesty's Inspector report favourably of each such Student's Powers as a Teacher.

13. Their Lordships rely upon the foregoing Provisions, in extension of their Minutes of 1846, to fill a constantly increasing Number of Elementary Schools with certificated Teachers. There must, however, for a considerable Period, remain a Number of Teachers disqualified by Age for passing the Examination for Certificates, as well as a Number of Schools not in a Position to obtain certificated Teachers, in those Parts of the Country more particularly which it is the Object of the Minute of 2d April 1853 to reach. Their Lordships will institute, therefore, a Class of registered as distinguished from certificated Teachers. An Examination will be held (on the same Plan as the late Easter Examinations for Certificates of Merit) by Her Majesty's Inspectors, at convenient Places throughout the Country, at some Time to be fixed, in 1854 and in each following Year. The Examination will last only Three Days. The Candidates will not be classed, but only passed or rejected. The Examination will be confined to simple Questions in the following Subjects:

1. The Holy Scriptures, the Catechism, and the Liturgy of the Church of England (in Schools connected with the Church of England.)
2. English History.
3. Geography.
4. Arithmetic (including Vulgar and Decimal Fractions.)
5. English Grammar and Composition.
6. The Theory and Practice of Teaching.

The Object of the Examination will be to ascertain sound, if humble, attainment.

No Teacher will be admitted to this Examination who has not completed his or her 35th Year.

Their Lordships will require all uncertificated Teachers in Schools, taking advantage of the Minute of 2d April 1853, or having Pupil Teachers apprenticed to them, to attend these Examinations.

CHESHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The fourth half-yearly meeting of this Association was held at Audley Castle Grammar School, on Friday, the 2nd inst. The attendance was considerable, notwithstanding the unpropitious state of the weather. Among those present, were the Rev. J. Armitstead, President; the Rev. O. Crewe, Vice-President; and the Rev. J. P. Norris, H.M. Inspector.

After the devotional exercises of the School were concluded, the following lessons were given according to previous arrangement:—

1. On "The Types of the Old Testament," by the Rev. C. Wilbraham, Vicar of Audley.
2. Natural History: The Bee, by Mr. Ryder, Kingsgrove.
3. Political Economy: Taxation, by Mr. Wade.
4. Arithmetic: Fractions, by Mr. Wooder, Audley Grammar School.
5. The Physical Geography of South America, by Mr. Bailey, Sandbach.

Some of these lessons were given in a didactic form, and some in a catechetical.

At the conclusion of the morning's work, the members dined together at the Butcher's Arms, Audley.

After the withdrawal of the cloth, an animated discussion on the merits of the lessons given in the forenoon ensued, in the course of which many interesting and practical remarks were made by several of the clergy and masters. H.M. Inspector, speaking of the lessons, remarked that "they were all very good, and admirably arranged." In the criticism of the one on Taxation it was very generally observed that Political Economy did not receive that attention in our schools the subject deserved. "Ellis' Elements of Social Science," and "Easy Lessons in Money Matters," were recommended as good books on this subject. Few observations of importance were made on the subject of Arithmetic.

It was suggested by one of the clergy that the teaching of Vulgar and Decimal Fractions should begin simultaneously.

In regard to Geography, it was thought that when a map was to be sketched on the black-board, the best plan would be to begin with the mountains or highest parts of a country, then take its rivers or veins, and then get the coast line. Another hint drawn from the lesson, was, in sketching a map on the board, to draw a kind of geometrical figure somewhat similar to the outline of the country, and then fill up the *details* of the coastline. It was also suggested that if, in tracing any river, marking the position of a mountain, or dotting down any town, &c., some interesting facts connected with the place were mentioned, it would tend greatly to rivet the attention of the class and to interest them in the lesson.

A resolution was then passed condemnatory of the scheme of Union of Schoolmasters, propounded by the editors of the "Educational Expositor."

The following question was next discussed: —"Are the advantages of curtains to each class, in shutting out the sight and sound of other classes, sufficient to make up for the disadvantage of hiding every class but that which the master teaches, from his observation.

The principle on which these telescope schools are constructed is that of isolation, making each class a kind of class-room. In answer to an objection that the faults and irregularities of a young teacher could not be well seen where there were curtains, it was explained that the curtains were never intended to hide the *teacher* from the master, but simply to separate the children in adjacent classes. Moreover, if a teacher could not be trusted alone with his class, it would be easy to throw back the curtains, and so expose both teacher and children to the gaze of the master. It was, however, remarked, that as parish schools were generally required for many different purposes, for which the telescope plan was unsuited, it was not advisable to build such schools on that plan, notwithstanding its apparent advantages where a room is erected *solely for the purpose of a school.*

A conversation then took place on "Middle Class Education," after which the meeting broke up.

The excellence of the lessons, the valuable hints thrown out in the criticisms which followed, and the importance of the subjects discussed, all combined to render this meeting more than usually interesting. We cannot help regretting that, notwithstanding the obvious usefulness of such meetings, and notwithstanding that so much has been said in their favour, so few comparatively are held throughout the kingdom. A deep sympathy for each other, and a wholesome and generous rivalry are promoted among the teachers. The reality of their work, and the great need of vigorous exertions in its discharge are vividly brought before them. And they return to their isolated homes with their new thoughts and ideas, new aids and new motives, to work in their several spheres and sacred calling, as those who must one day give an account of their stewardship.

Such, in measure and degree, we trust and feel convinced will be the happy effects of this gathering of the Cheshire Association.

MALTON CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

An Association for Schoolmasters in connection with the Church of England, has been recently formed in Malton. Its object is the mutual improvement of its members in subjects taught in schools, and to promote a kind and fraternal union amongst them. Arrangements have been made for holding monthly meetings, at which a paper shall be read on some subject connected with school teaching, followed by a discussion. Two papers have been already read; one by Mr. Dunwell, on "Teaching to read," and another by Mr. Graham on "Teaching Geography."

SOUTH STAFFORDSHIRE & NORTH WORCESTERSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

From inquiries that have been made of several of the members of this Association, it is evident that some of your readers have mistaken "The South Staffordshire Association," mentioned in the report of the "Wolverhampton and Birmingham Day-school Teachers Association," for ours. Will you kindly remove this misapprehension, by stating in your next, that the South Staffordshire and North Worcestershire Church of England Schoolmasters' Association, continue their meetings fortnightly, at the St. Edmund's School, Dudley.

A MEMBER.

Correspondence.

SIR,—At the Examination of Pupil-teachers, &c., held at Birmingham, on Wednesday, the 31st August, the following scheme of subjects, as drawn up by the Rev. H. W. Bellairs was presented to the masters and mistresses there assembled.

It is to be understood that the questions proposed will be set on the different subjects given each year.

This will be a great boon both to teachers and their apprentices, as there is something definitely laid down to which to devote their attention and study.

LYNN.

Course of Subjects for Examination for the five years of Pupil-Teachers' Apprenticeship.

	Holy Scriptures.	Catechism, &c.	Geog. (with Illus.)	History.
Candidates	Sermon on Mount: Abraham: Joshua: St. Paul.	Catechism.		
1st Year.	Genesis & St. Matthew.	Arts. i-iv., with Scripture Proofs. Morning Prayer to Psalms.	River & Mountain System of Great Britain, Ireland, and Palestine.	
2nd Year.	Exodus: Numbers: Matthew, & St. John.	Arts. v-xvi. Scripture Proofs.	Ditto of Europe.	
3rd Year.	Joshua: Judges: St. Mark, & St. Luke.	Artsxvi-xxvScri. Proofs. Collects, Advent to Easter.	Ditto of Asia.	Hist. of England to Reforma., with critical Questions on Henry II.
4th Year.	I. Samuel to II. Kings: Acts.	Arts. xxv-xxii. Scripture Proofs. Occasional Services.	Colonies of Great Britain with their productions, also River & Mountain System of Africa and America.	Refor. to Revolut. with especial Ques. on Elizabeth
5th Year.	Historical parts of Isaiah, compared with the Historical Books: Old Testament Prophecies, relative to Our Lord, & their fulfilment	Atsxxxiitoxxxix Scripture Proofs. Liturgy generally	General Geography Historical, Political and Physical, with especial reference to Great Britain & Colonies.	From Revolution to Victoria, with especial reference to George III.

SIR,—I should be glad if one of your correspondents, through the medium of your valuable "Papers," would inform me by what means the food of the Horse is sufficiently digested. *Its* food is the same as that of the Ruminant, viz: vegetable; but in order to detain it in its passage, that it may have longer time for digestion, which vegetable food requires, the latter is provided with the power of chewing the cud, which the former is deprived of. Now, I am desirous of knowing what the horse is provided with as a compensation for this apparent omission.

I hope you will not think this too trivial a subject to write upon, nor unworthy of insertion, as I have been asked the question, and am unable to answer it.

J. A.

NOTICES OF BOOKS.

A Manual of Domestic Economy: with Hints on Domestic Medicine and Surgery.—W. B. Tegetmeier.—Grombridge and Sons.—This Manual has been prepared under the direction of the Home and Colonial School Society. The Preface explains both the character of the book, and the necessity which led to its publication.

"It having been required by the Minutes of the Committee of Council on Education, that the Female Students of Training Establishments should receive some instruction in Domestic Economy, as well as on Domestic Medicine and Surgery, the Committee of the Home and Colonial School Society anxiously inquired for a Text Book of moderate size and price on these subjects. To their surprise, they found that although there was no lack of information, it was scattered through so many volumes, and some of them so expensive, that their first teacher who undertook to give these lessons found it a task of no ordinary difficulty, and occupying a space of time altogether incompatible with other duties. Under these circumstances, application was made to the Rev. F. C. Cook, one of Her Majesty's Inpectors of Training Schools, for his advice; that gentleman at once admitted that he knew of no Text Book altogether satisfactory; he considered a good one would be a great desideratum, and strongly recommended the Committee to undertake its publication."

The object thus proposed has been successfully accomplished, and a really valuable book is the result, and we shall be happy to know that so fitting a text-book is used not only by Students, and Teachers, but in every Elementary Girls' School. Without doubt the time-table of most girls' schools admits of improvement, and particularly in the matter of Domestic Economy. It is not absolutely *essential* that the laboring man's daughter should have a knowledge of Grammar and Geography, but it is essential that they should have a sound acquaintance with the proper management of a House and Family. Of all educational influences, none is so powerful as that of Home, it invariably gives a character to life; neither can it be wholly destroyed, either by the influence of the school or the world. But mere intellectual improvement will not add to the influence of a wife or mother who is at fault in domestic management. The Home will always be what the female makes it; to begin with the female is to begin at the proper place, and the first object must be to prepare them for their coming domestic duties, that they may at least *know* how even a poor man's Home may be one of peace and comfort—how a husband's Home may be made to yield pleasures, such as the public-house and drunkard's song will never tempt him to forego.

To the Schoolmaster is committed the Intelligence of the country, but to the Schoolmistress is given a higher mission—the Homes of England. With such a mission we conceive that every Teacher of a girls' school should give a *daily* lesson on Domestic Economy; and that next to Holy Scriptures, it should be looked upon as *the* subject with which girls' schools are charged.

We commend this Manual to the Clergy and School-managers, as one which they should place in the hands of girls leaving school; to Mistresses as a necessary text-book, and to Masters as one of the most valuable household books we have seen.

The Colonial Empire of Great Britain.—E. Sheppard.—Wooldridge.—A very fair summary of information on the Colonies; principally, however, on the value to be attached to the colonies, in their several relations to the mother country, whether as fortified posts, refreshing stations, or field for emigration.

PAPERS FOR THE SCHOOLMASTER.

No. 33. NOVEMBER 1, 1853.

The Minutes of April and August.

In our monthly intelligence will be found much that is interesting to those who watch the progress of the Government Measure for Public Education. In our last number we presented our readers with a copy of the new Supplementary Minute, and commented on those portions of it which affected the prospects of Candidates for Queen's Scholarships. For this impression we reserved to ourselves the reverse picture, and intended to point out the unfavourable tendency of that Minute in its relation to Normal Institutions. By reference to Section XII. it will be seen that Students will be now required to remain two years in residence, and that gratuities to those Institutions will be claimable on account of one year only. In the prospect of so serious a diminution of support from the public purse we are not surprised to hear that the various Training Schools have taken alarm, and have sent remonstrances to the Committee of Council on Education. In this number, under the head of "Intelligence," will be found a letter embodying the views entertained by the Committee of Management of one of our Training Institutions. We have seen others which evince that the same apprehensions are universally felt. There can be no doubt, from the well-known disposition of the Committee of Council to render as effective as possible the Normal Schools, that such communications will receive their due consideration. The Training Schools and Colleges constitute the heart of the whole Educational System, and to produce an unhealthy action here, must be to neutralise all the functions of a subordinate character, and to weaken the vigour of the extremities, however perfect their constitution may be. We earnestly hope that this portion of an otherwise well-thought out measure will be revoked, or that at least so many exceptional cases will be allowed as that its objectionable properties may be virtually cancelled. Amongst other exceptions we instance that of Students who have not been Pupil-teachers, and especially those who have been already engaged in School-keeping, and are unable to remain two years.

Our readers are also referred to that most important Minute which was commented upon in our September number. It was intended to be a supplement to Lord John Russell's Measure for Corporate Towns, but if we mistake not the daughter will arrive at maturity before the parent. So long as the initiative must be taken by a large majority of Town Councils, we fear that the Measure will remain a dead letter, *until* the Minute to which we now allude shall so far improve the agricultural districts and unincorporated towns as to shame the larger corporate boroughs to exertion. As this Minute will come into immediate operation, we recommend the Clergy and Friends of Education who have suffered for want of support to examine its provisions, as well as the explanatory circular to the Inspectors, which we have annexed to it.

On Reading.

We introduce to the readers of the "Papers" the following official circular letter which has been forwarded to the various Inspectors of Schools, and we do so with the conviction that it refers to a subject, second to none in importance to the Elementary Schoolmaster.

"Sir,

"I am directed to inform you, that complaints have been made to my Lords, concerning the very small degree of attention which reading (as part of elocution) receives in elementary schools.

"It has been brought under their Lordships' notice, that out of nine Queen's scholars, in a training school under inspection, not one was found qualified to read the lessons in chapel.

"In order to direct attention to this deficiency, my Lords think it desirable that you should, on all occasions of examining pupil-teachers, make it a point to require each of them to read to you a passage from some book, with the words of which you are not familiar, while you stand yourself at some distance from the reader, without any book in your hand. The result to be recorded under the appropriate heading in the form No. X.

"It is unnecessary to remark, that the power to read well does not depend upon distinct articulation, correct accents, and a certain exertion of the voice only, although even these mechanical parts of the matter appear to be receiving inadequate attention. In depends also, and principally, upon an intelligent analysis of the several parts of every sentence, upon the distinction of subject and predicate, of principal and accessory clauses, and, generally, upon a knowledge of the relation of each word, in sense and construction, to the rest.

"The reading will be found to be best in those schools where a passage not longer than will suffice to go round the class is selected for the purpose, and is then both read aloud and analysed, with reference to the mode of reading it.

"Reading lessons are, in most cases, made to serve merely as texts for lectures and questions in the subject-matter of them, and it may be necessary to read much with this object principally in view. It is, however, desirable that *every school time-table should contain an entry of one daily lesson for each class in the art of reading as such.*

"I am to request that you will give effect to these observations forthwith in your examinations of pupil-teachers, and that you will, as you have opportunity, direct the attention of the school managers and school-teachers to the deficiency which exists.

"You will receive instructions to include an exercise in the art of reading in the oral part of the next Christmas examination, at the training schools.

"I have the honour to be, &c.,

"R. R. W. LINGEN."

The *Educational Record*—the organ of the British and Foreign School Society, which has called our attention to this subject in connexion with the above circular—adds the following excellent observations:—

"There is no one accomplishment which would prove of more value to a child than the power of reading aloud well. Wherever this power is possessed by one member of a family, the amount of advantage and of innocent pleasure which may accrue from it to the rest of the household is very great. Excellent literature is now accessible to the poor and the young, at low prices; but this blessing would be tenfold more available to those classes than it is, if teachers took pains to cultivate the art of reading to a greater extent than they do at present. What is needed is, that the *whole meaning* of an author should be conveyed to the mind of the hearers in an easy, intelligent, and agreeable way. Now, of course, the mere utterance of the words of a book in a certain order, and with fluency, the minding of the stops, and making no mistakes, do not constitute good reading. Yet these satisfy most teachers, who are apt to forget that while, perhaps, they only look for accuracy in school, nothing short of pleasant and rational reading will serve the purpose at home. Unless a child has the power to read in this way, he will never be asked by others to read aloud to them, except occasionally, as a lesson; and whatever talent he has, will soon become lost by disuse."

To these important remarks little more need be added. Articles in the earlier numbers of our Periodical have been written, in order to accomplish, what art can accomplish, to break down provincialisms and barbarisms as well as to induce correctness in tone, articulation and emphasis. But when all this has been reached, the goal of good reading may still be in the distance. The art of good reading consists in the facility with which we can penetrate the writer's mind, and make his sentiments our own. When we are able to do this, we shall read as we should speak. There is no greater fault than is made by those who fancy that they should have one voice for reading and another for speaking. Here the country schoolboy who reads in a sing-song twang, and the *fine* spouter, by assuming artificial voices, are equally at fault. To avoid this error is to secure the first requisite of good reading,—*naturalness.*

The next effort should be to read with *fluency and ease,* so that the mind can so far anticipate from what has already been read as to assist the eye, without rendering necessary those pauses and interruptions in the middle of a sentence which spoil the whole effect. And yet there is a fluency and ease which comes mechanically, the result of tact and the discipline of a practised eye, which being void of expression, makes no deep impression upon the hearer, and becomes characterized by a soporific monotony.

Thirdly, we indicate *emphasis* as an important feature of good reading. By this we mean to point out the duty of laying hold of the words in each sentence which chiefly develope the writer's meaning. Words that stand in contrast or in an antithetical position, must be emphasised; adjectives more frequently than nouns. But, while the reader, to avoid a lifelessness or want of expression, should use correct emphasis; on the other hand, emphasis overwrought degenerates into *bombast,* and our first rule of naturalness becomes infringed.

To these rules add those of distinct and slow articulation—clear pronunciation of the consonants—variations of the voice, louder or lower, graver or more cheerful, to give expression to the varying subject that is treated of. By the last paragraph it will be seen that the Inspectors are called upon to test the reading powers of every Candidate for a Certificate of Merit. When we bear in mind how very few they are who can be said to read well—how many qualities must combine to enable them to do so—how much both of real intelligence and of superadded cultivation is essential, if we were asked what *single* criterion we should adopt for determining the condition of any given School, we should answer—*let the children read.*

Examination for Certificates.

In our last article on this subject, we were in error in saying that "Penmanship" was not in the Schedule. In the last "Broad-Sheet" it is entered in the same relationship as that in which we noticed it. The fact that it now finds its place among the other subjects, strengthens the remarks we then made, on the necessity of a more careful attention to this useful acquirement.

The subject next in order is *Arithmetic*, to which is added *Book-keeping*. We need not enter at any length on so familiar a branch of instruction. The advice that may be most required by the class for whom we write is, that you should avoid the old text-books. In doing so, we have not the remotest wish to damage the reputation of our old and worthy friend Walkingame, or of his peers. Their works have done good service, and may yet, carefully revised and improved, hold a useful position. To those, however, reading for Certificates, a text-book is required that contains something more than pages of exercises, as the Examiners set questions to ascertain, not only the power of correct and facile operations, but also the principles on which those operations are based. And as arithmetic is so fully a school subject, a close reading of proper text-books will be of as great advantage to the School, as to the Teacher.

To those commencing a course of this character, a better introduction can hardly be had than Tate's "Principles of Arithmetic," afterwards the "Treatise on Arithmetic," by the Irish School Society, may be read, and for really difficult and interesting exercises, Colenso's Arithmetic. This last has the advantage of presenting a class of examples very nearly approximating to those set at the Christmas and Easter Examinations.

Latterly, the subject of *Mental Arithmetic* has been more definitely and regularly introduced. The questions here, have called for the rule employed in a particular operation, and with the rule, the reason on which it is based. Both rules and reasons may be found in either McLeod's or Crossley's Arithmetic. In our "Papers" have appeared, at different times, articles on arithmetic, designed to cultivate a taste for intelligent operations, instead of that endless repetition of blind calculations, which makes the performer but a machine.

Book-keeping, so much of it at least as is required at an Examination, is a very simple matter, involving little more than a knowledge of the general principles, the precise meaning of the terms employed and the modes of ordinary entries. The cheapest, and decidedly the best for this particular purpose, is the Manual on Book-keeping, by the Irish School Society. It is constructed on the synthetic method, and the learner is led from the very simplest elements, whilst at the end of each section is a copious and appropriate set of questions, pointing out the main particulars in the section just passed, and calling attention to correct definitions. Nearly all the questions hitherto put, have been answerable from a correct knowledge of the first five sections of this Manual. It has the further recommendation, that it is *the* book for elementary schools, where book-keeping is taught; each section is complete in itself, and if but the first is mastered, it is done greatly to the advantage of the learner.

English History occupies the next place on the Schedule. This, as generally understood, is one of the easiest subjects on the list; as understood, however, by the Examiners, it is really one of the most difficult. As found in the ordinary text-books, English History consists of little else, but the most striking political events; as set in the Examination Papers, it is made to include the department of religion, constitution, national industry and commerce, and the progressive condition of the people. Each of these departments constitutes an extensive subject of itself, sufficiently difficult, with the aid of proper text-books, but much more so, when the information has to be gathered from many sources. To obtain a good knowledge of these several departments is the work of a life; all that can be hoped for is a general knowledge of the whole, and a particular knowledge of the more important items. Text-books on English History are numerous enough, though good ones are rare. Amongst the best is White's, published by Simpkin, and although small, has nevertheless the merit of bringing out with great distinctness the main points of our history, besides dwelling, to a limited extent, on matters of religion, constitution, &c. Gleig's History is generally well-known, and pretty largely patronised; the latter part is very full, though mostly on the current events. It is a book that will render efficient service, especially if read by the side of supplementary works, to supply the other departments of history. For such supplementary reading we would recommend Pinnock's "Reformation in England, with the Prior and Subsequent History of the English Church," De Lolme "Constitution of England," revised and published in Bohn's Standard Library. Also three small and cheap volumes on the "Trade and Commerce of England, originally published by Knight. The history of the progress of the people is not so easy to obtain. Henry's England, and the Pictorial England, published by Knight, can occasionally be procured at a low price, and though rather expensive, will amply repay the outlay. In both these works, the several departments of English History are treated of separately, and generally with considerable success.

In connexion with History, the subject of chronology should not be overlooked. In Gleig's Manual, a full and valuable chronological table is given at the head of each chapter, from this the most important dates should be taken out and carefully committed to memory.

The subject of History will require a good deal of close attention, and the more so, as the student can obtain but little help from those devices, which so much assist in some other subjects. Thus geography has a powerful aid in the use of maps, which form a complete system of Mnemonics, based on the power of association. In history the most useful device the student can employ, is fouud in writing abstracts and constructing tables.

Next in order stands *Geography*, a subject as popular as it is interesting. This subject has made considerable progress in elementary schools within the last twenty years, owing mainly to the introduction of large and bold maps in outline, constructed expressly for schools. The result is that teachers generally are better "up" in this subject than in some others quite as essential to their position. In the more recent examinations the range of the questions on geography has been better defined and somewhat limited. To answer those now set, requires a good knowledge of maps, and of physical, political, and descriptive geography. In the matter of maps, it is required that there should be a good general knowledge of all, but a minute acquaintance with those connected with our own country, especially of their coast lines and ports, whether sea or river ports; besides, there must be the power to produce on the Examination Paper, a map of any required country, either in whole or in part. This department of geography will become familiar in proportion to the frequency with which the map is properly used in giving lessons, and the black-board employed for showing more distinctly the outlines, mountain ranges, and river system of the country or district under consideration. If in addition to these opportunities, an exercise in careful map-drawing is done weekly, this branch may be considered as sufficiently provided for. On the subject of map-drawing, we would recommend Teachers not to be discouraged by the account given by Horace Mann of the beautiful and very correct map, which he saw produced with such rapidity, in one of the continental schools. This is not the only instance in which amateur educationists have blindly eulogized striking performances, which to them appeared a part of the common school routine, but which were really special exhibitions, specially prepared, and only specially employed. However rude your first efforts may be, a steady perseverance will bring success.

Next to a good knowledge of maps, and a power to draw any of the principal ones, is a thorough acquaintance with the great and distinctive physical features of the large geographical divisions, and of individual countries. In this matter the most effective method is the descending one, taking the great divisions first, so as to obtain a clear and comprehensive view of their physical peculiarities, and afterwards those of the countries contained in them. Hughes' Physical Geography is valuable in this point, and has the advantage of a few good, though small, physical maps. Those who desire larger maps of this description, will do well to purchase Johnstone's "School Atlas of Physical Geography."

For the particular information required on separate countries, the "School Geography" of Dr. Cornwall is in general use, and has the merit of containing a large mass of assorted matter, under the head of physical, as well as of political geography. Both in the character and arrangement of the information, this book is generally very superior, and quite worthy of its popularity. To those who desire a more extensive work, and yet within a moderate compass, the Manual of Geography, by W. Hughes, may be recommended. This book also is entitled to the attention of Schoolmasters, as the production of a successful Teacher in this particular department.

With regard to the Atlas of Political Geography, we need say little; they are numerous, and generally well-known. It is an advantage, however, to have an atlas related to the text-book used. Both Dr. Cornwall and Mr. Hughes have published such atlases.

We have been more general in our remarks on Geography, not because its importance is less than that of other school subjects, but simply because the text-books are of a better character, and do of themselves, both indicate the course and supply the information required. The student who reads up carefully Cornwall's Geography and Hughes' Physical Geography, and obtains besides the power of sketching off the maps of Great Britain, Ireland, and the great divisions of the globe, will be certain of success. The Teacher has moreover this advantage in connection with geography,—every step gained will benefit his school, whilst every good lesson given will tend to deepen and perfect his own knowledge. This should be true of all really school subjects, though, in the present stage of elementary education, it is so, only of some two or three.

Notes of Lessons.

[*The Editors wish it to be understood that the insertion of "Notes" from Correspondents is not to be considered as marking their approval of the Methods which may be adopted.*]

NET CAST INTO THE SEA.—MATTHEW XIII. 47—50.

(OUTLINE NOTES.)

I *Introduction.*

1. Bring out that the sea contains great numbers of fish of various sorts. Describe a fishing scene,—the net cast into the sea—the *patient waiting* of the fishermen—the net at length full and gathered—the *inspection—all* examined—the good *preserved*—the bad *destroyed*

2. Explain the term "Kingdom of Heaven." Give a vivid description of the end of the world—of the inspection by the Angels—explain "Sever." Describe the separation of the *wicked* from the *just*. Bring out the idea of Hell, as contained in the expressions, "furnace of fire," "wailing" and "gnashing of teeth."

II *Lesson.*

1 A net entangles—catches. It is employed to draw the fish from their *element*; so the "Kingdom of Heaven"—the church, or the Gospel—is employed to catch men, to separate them from their element *sin*.

2. A net is used with *uncertainty*. The sea contains different sorts of fish—a net catches *all* sorts—so the church gets all sorts of people—compare with an hospital, into which people are taken to be made *better*.

3. The inspection and separation of the fish do not take place till the fishing is over. So when "the end" has come, the Angels will inspect and sever. This is *certain*—nor can they make a *mistake*.

4. The bad thrown away—so all in the church, that are not *real* disciples—hypocrites—will be destroyed.

III. *Application.*

Are you a *real* disciple? Or are you *deceiving* yourself? For those that deceive themselves, there is "wailing"—for those who try to deceive others, "gnashing of teeth."

CLIMATE.

The Subject will furnish matter for three lessons for a 1st Class in a good National School.

No. I.

I. Meaning of the term *climate*.

II. The *amount* of *solar heat*, the *chief* cause of difference of climate.

(Introduce the lesson by asking the class to tell you the state of the weather; then train out from them, that the *climate* of a place means the prevailing character of the weather at that place.

I. The word *climate* means a *gradation—gradus*, a step—and expresses the prevailing character of the weather in any given country; it is modified by seven different causes, the first of these is,

II. The amount of *Solar* heat,—*Sol*, the sun—although, as we have good reason to believe, the centre of the earth is in a state of great heat, yet the warmth experienced at the surface is not derived from this source, the particles of which the earth's crust is composed being *bad conductors* of heat. (Illustrate by asking, if we were to make a piece of iron and a stone hot, which would allow the heat to pass through its substance most quickly?) Owing to the same cause, the sun's heat does not penetrate far into the earth's substance, deepest where his influence is greatest, but nowhere further than 100 feet from the surface.

The amount of solar heat received at any given place, is in proportion to the number of the Sun's rays which fall upon it. This depends upon the *direction* in which they fall; and the time of the Sun's continuance above the horizon. (This may be illustrated by a diagram, or) suppose a person stand *before* a fire, and another person stand *beside* it, which will receive the most heat, and why? Of course the one who stands before the fire because the rays of heat will fall *directly* upon him, consequently a greater number of rays will fall upon a given space, falling in a straight direction than in a slanting or oblique direction. This illustrates what is going on, on a large scale, on the earth's surface; that part of the earth on which the Sun's rays fall perpendicularly, will experience the warmest climate. In order that the rays may fall in this direction, the sun must be vertical or overhead, this is the case in only one part of the earth, between the tropics; as we recede from the tropics, either northward or southward, the rays fall more and more slantingly, and as the number of rays diminishes as we approach the poles, so does the temperature; this is the *principal* cause of the temperature of a place, and we may say *generally*, that the climate of a place is warmer the nearer it is to the equator, or that its temperature diminishes as its latitude increases.

Why have we warmer weather in summer than in winter? The long day is the leading cause of the heat of summer in the temperate and polar regions. When the Sun is above the horizon, the earth is gaining heat, but when the Sun sinks below it, then the earth radiates its heat. (Illustrate by the little rays of light from a lamp or candle, but draw from the children that rays of heat are invisible.)

When the sun is longer above the horizon than he is below it, the earth has more time to absorb heat than to radiate it, the days are longest—hence places 10° from the equator will be warmer than places at the equator, because there the sun is never more than 12 hours above the horizon, but north and south of this point the days increase in length.

BRIEF NOTICES OF NOTES OF LESSONS.

CASES OF NOUNS.

(For Criticism.)

Train out the idea.
1st of Nominative case.
2nd „ Objective.
3rd „ Possessive.

I.

Get from the children a number of their exercises during school-hours—as reading, writing, spelling, &c. Show that as to read, write and spell, are things which they can do, they are said to be their actions. Let the children give the names of some persons who perform these actions, and write them on the left hand of the verbs or actions; thus—Jane reads, Mary writes, Eliza spells. Now tell them that as Jane is the name of the child who performs the action of reading, Mary of writing, and Eliza of spelling, they are said to be in the naming, or nominative case.

II.

Let the children give a number of objects which they can read, write, and spell; write them on the right hand of the sentences already written —thus, Jane reads a book, Mary writes a letter, Eliza spells her lesson. Show that as these are the objects which are acted upon, they are said to be in the Objective case.

III.

Write down some of the names of the girls on the black-board—as, Hannah, Sarah, &c. Tell the children that you wish to let them know that Hannah possesses a slate, Sarah a doll, &c. Write down the name of the child, and after it place the object which she possesses—thus, Hannah slate, Sarah doll; and show that this does not at all lead us to suppose that the slate belongs to Hannah, or the doll to Sarah. Get from the children a number of ways in which this idea of possession might be conveyed, and then tell them that the Anglo-Saxon used the inflexion, "es," to mark possession, but that we add s, with an apostrophe before it, to mark the omission of the e. The children will now be able to understand why a noun followed by "s" is said to be in the possessive case.

This lesson is considered as a "First lesson on the cases of Nouns."

Remarks. There is no subject which can compare with English Grammar, properly taught, as an instrument of mental discipline. But, few teachers appear to have realized this, for perhaps no other subject of elementary instruction is taught so mechanically. Nor have we to look far for the reason of this. Elementary Schools for the poor took their methods in Grammar, Geography, and Arithmetic from the "Text-books" of Adventure Schools for the middle classes. These Text-books had been got up in ignorance of the best methods of disciplining the mind, and indeed were prepared chiefly for the cultivation of the memory by task and rote instruction. They had been prepared too for children who were expected to remain at School long enough to go through them. This circumstance alone shews the unfitness of their methods for the purposes of elementary schools, where the attendance is so brief a portion of a child's existence.

Better methods of teaching Geography and Arithmetic have grown out of this condition of things, and there are not wanting signs of English Grammar taking its proper position. The question to be determined is not how much "Etymology" you can cram a child with, but how can you best impart such an acquaintance with language as the instrument of thought, as will enable him to use it well. Now, on the old plan of teaching Grammar, it was not proposed to accomplish this until the pupil had worked through a hundred pages of Orthography and Etymology, and thus it often happened that it was not accomplished at all.

To this mode of teaching Grammar we object, not only because of the length of time it involves—and, therefore, in our schools, practically useless — but because the object may be more effectually achieved by reversing the process.

Make a child acquainted with sentences, beginning with the simplest, and take it up through a well-graduated series, until it can take the most complex to pieces, and account for every clause, every phrase, and every word employed. Every step of such a course would be found effective in disciplining the mind, and if the child should leave the school, before all you proposed is accomplished, even then, you have given it an insight into the mode of expressing thought, and have thus empowered it, to some extent, to gather up the true meaning of the works it reads.

The "Notes" before us, though they exhibit some acquaintance with improved methods of communicating instruction, yet smack too much of the old system to meet our cordial approval.

Enoch, by W. M. Fair graphic power, but arrangement defective. A leading idea runs through the whole, but the idea suggested by "walking with God" has not been grasped. The earnestness of the application is very commendable.

Cow, by W. S. Exhibits fair knowledge of the object of Natural History lessons that of pointing out the adaptations of the structure to the circumstances of the animal; but the method of doing so does not appear. The practice —as in the last division—of forcing religious sentiment on such subjects, not only, in our opinion, does not secure its purpose, but is productive of evil.

Tea, by H E. Very full notes of information; embracing descriptions of the plant, its localities, mode of preparation, and introduction into this country.

Iron, by L. S. These are "full notes," and as such exhibit the method of *training out* the facts of the lesson, but the matter admits of better arrangement, and might have been more wisely selected.

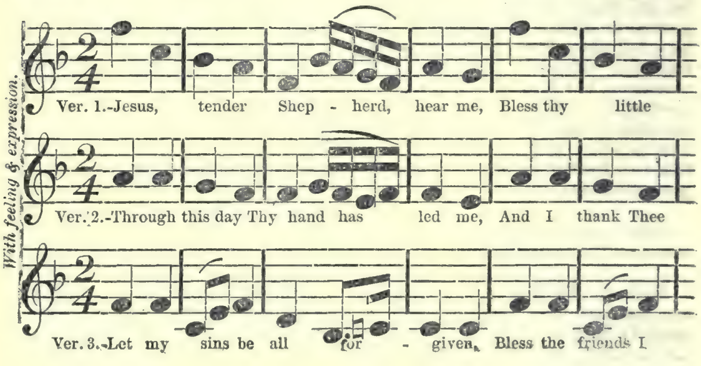
Manufacture of a Needle, by E. A. T. Very good notes of information, and arranged with an eye to collectiveness, ascending from the easiest to the most difficult facts; but not exhibiting the *Method of Exposition*, must be considered defective as Notes of a Lesson.

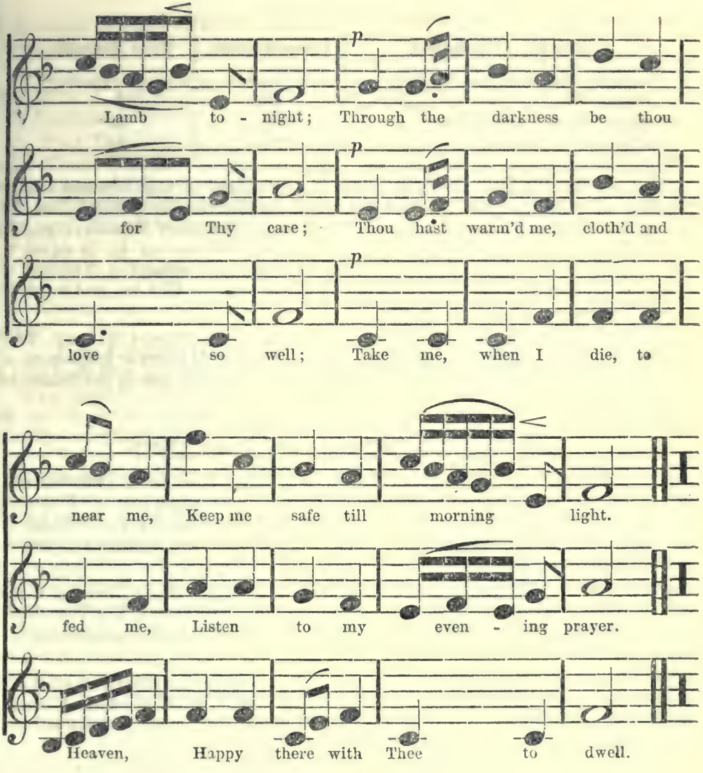
Under Consideration—Communications from T. R. C.; S. F.; J. J. G.;

A Child's Evening Prayer.

FOR THREE EQUAL VOICES.

Words by DUNCAN. *Music by* J. H. CROSS.


With feeling & expression.
Ver. 1.-Jesus, tender Shep - herd, hear me, Bless thy little
Ver. 2.-Through this day Thy hand has led me, And I thank Thee
Ver. 3.-Let my sins be all for - given, Bless the friends I


p
Lamb to - night; Through the darkness be thou
for Thy care; Thou hast warm'd me, cloth'd and
love so well; Take me, when I die, to
near me, Keep me safe till morning light.
fed me, Listen to my even - ing prayer.
Heaven, Happy there with Thee to dwell.

Educational Intelligence.

At the Council Chamber, Whitehall, the 2nd Day of April, 1853.

By the Right Honourable the Lords of the Committee of the Privy Council on Education.

Minute as to Grants for the Support of Schools in the Agricultural Districts and in unincorporated Towns (not containing more than 5,000 Inhabitants) in England and Wales.

Resolved,—That any School now admissible, or which shall hereafter be admitted, to Grants under the Minutes of August and December, 1846, may receive a Grant towards the Expenses of the preceding Year, at the Rate per Scholar set forth in the following Table:

Number of Scholars.	Boys Schools.	Girls Schools
Under 50	6*s*.	5*s*.
Above 50, but under 100 .	5*s*.	4*s*.
Above 100	5*s*.	3*s*.

Provided that the Rate shall not diminish on account of any Increase in the Number of Scholars until the Increase is such as to make the reduced Rate fo the higher Number balance the unreduced Rate for the smaller Number, *e. g.*, 10 Scholars at 5s. per School is equal to £25, but 101 Scholars at 4s. is equal t £20 4s.; the Sum of £25 is therefore to be continued until the Number of Scholars reaches 126, which at 4s. per Scholar is equal to £25 4s., and so on to other Quantities.

Provided that no such Grant shall be claimable in respect of any Yea preceding the Date at which the Visit of One of Her Majesty's Inspectors o Schools shall, according to the Regulations now in force, be due to the School in question.

Conditions on which foregoing Assistance is offered.

1. That the Income of the School in the preceding Year from Endowments, Subscriptions, Collections, and School Pence shall have amounted to Fourteen Shillings per Scholar in Schools for Boys, and Twelve Shillings per Scholar in Schools for Girls, without including the annual Value of the Teacher's House or other School Buildings.

2. That every Scholar who has attended, on the average, Four Days per Week during Forty-eight Weeks, or One hundred and nine-two days in the Year shall, be reckoned in the Attendance by which the Amount of the Income and the Grant are determined.

3. That One Penny per Week, at least, shall be paid for the Education of every Scholar by his or her Parents, Guardians, or Friends, and that in no Case in which the Attendance or School Pence of any Scholar are reckoned shall the Charge exceed Fourpence per week.

4. That the School shall be kept by a Master or Mistress holding a Certificate of Merit under the Minutes of 1846, and that at least Seven Tenths of the whole Income, including the Grant, shall be applied to the Salary of the Teacher and Assistant Teacher. That in Schools containing more than One hundred and twenty Children the Managers shall avail themselves of the Minutes of this Committee to provide, from the Seven Tenths of School Income, such Pupil Teachers, exceeding the Rate of One for every Forty Scholars, or such Assistant Teachers, as this Committee may require.

5. That the Grant applied in aid of the Stipend of the Master or Mistress may be accepted by this Committee, in lieu of the voluntary Contributions required in fulfilment of the pecuniary Conditions of the Grants in augmentation of Teachers Salaries, under the Minutes of August and December 1846.

Subordinate Regulations.

6. That the Children employed in Factories and Printworks, who attend School under any Statute, shall be counted as Scholars in ascertaining the average

Attendance, if they fulfil the Provisions of the Act, and the School Pence paid on their Behalf shall be reckoned in the Income of the School.

7. That such Forms of Account of the Income and Expenditure, and such Registers of School Attendance and of the Payment of School Fees, be kept as this Committee may direct in a separate Minute of Details.

8. That Three Fourths of the Scholars above Seven and under Nine Years of Age, Three Fourths of those above Nine and under Eleven, and Three Fourths of those above Eleven and under Thirteen, respectively pass such an Examination before Her Majesty's Inspector or Assistant Inspector as shall be set forth in a separate Minute of Details.

Explanatory Circular to Her Majesty's Inspectors.

Committee of Council on Education,
Council Office, August 20, 1853,

SIR,

I am directed to request your Attention to the Explanations which my Lords have this Day authorized me to issue in regard to the foregoing Minute.

With regard to Schools already in receipt of annual Grants, the Minute will be put in force from the First of January next without further Application on the Part of the Managers, *i. e.*, as each Report by Her Majesty's Inspector on such a School is received, the Committee of Council will decide, not only upon the Stipends, Gratuity, or Augmentation, but also on the Capitation Grant to be allowed in respect of the Year ending at the Date fixed for the annual Inspection.

Thus One Report by the Inspector in each Year will suffice; the School will still come only once before my Lords in each Year for the whole of its annual Payments, and no Change will need to be made in the Time fixed for visiting the several Parts of the Districts.

The Schools now in receipt of annual Grants will form the Centres round which the new Applications must be grouped.

The new Applications will proceed from Schools not at present receiving annual Grants, and these Schools may either be already liable to Inspection or may be brought under the Notice of my Lords for the First Time. In the latter Case, my Lords will ascertain by Correspondence from this Office (through Forms now in use) whether the School in question be primâ facie admissible to Grants under the Minutes of August and December 1846.

The Cases found to be admissible will be referred to you in the Form No. V., in order that you may fix the Date of your Visit, and on Receipt of your Reply a Form analogous to No. XII. will be sent to the Managers. The First Grants will be paid on Receipt of your Report for the Year ending at the Date fixed for your Visit in 1854.

It is the peculiar Object of the Minute now in question to improve that Class of Schools which has hitherto failed to obtain a Share in the Benefits offered by the Minutes of 1846. In reporting upon them you will carefully bear in mind the Instructions dated 13th June and 4th October 1853 (Minutes, 1851-2, pp. 101-103). It might be their Lordships Duty to refuse Assistance under the Minute of 2nd April 1853, no less than under the Minutes of 1846, to a School until it had been placed in more suitable Premises, and better supplied with Furniture, Apparatus, and Books. In all Cases, however, where Defects of this Description are not either injurious to the Health of the Scholars, or necessarily fatal to all Improvement and Progress, my Lords will be disposed to look for Amelioration from the Grant of Assistance, and from the Influence of your Inspection, rather than as a Condition precedent to such Aid. It will be your Duty, in reporting for the first Time upon a school which, in its material Appointments, is below the Standard, to consider whether it is in the Hands of Persons who lack neither the Intelligence nor the Wish, but only the Means, gradually to improve it. The Interests of Third Parties are not compromised, as in the Case of apprenticing Pupil Teachers, by acting at once on the Promise of better Things.

The Duty imposed upon you is not easy to discharge without great Attention and Judgment. You are required, without permanently lowering the Standard at present maintained, to reach a Class of Schools hitherto unable to fulfil the Conditions of public Assistance. With these preliminary Remarks I have to request your Attention to the following Directions respecting the Conditions on which Assistance is offered, taking them in order as they stand in the Minute :—

1. My Lords have been asked in respect of *what* Boys and Girls the required annual Income is to be calculated ; whether, for instance, in respect of the whole Number on the Books, or in average Attendance, or in respect of those only for whom the Capitation Grant is claimable ?

My Lords have determined to require the Condition to be fulfilled in the Case of those Scholars only for whom the Capitation Grant is claimable.

It has not escaped the Observation of my Lords, that this Interpretation will at first render the Condition almost nugatory. On the other hand, it is undeniable that to require such an Income to be raised in respect to the whole Number of Scholars would exclude the greater Part of the Schools which it is the Objec of the Minute to reach. Their Lordships contemplate that the Number for whom the Grant is allowed will, at first, bear comparatively a small Proportion to the whole Number, but that it will gradually increase. As the Grant increases, so must the Income of the School be proved to keep pace.

In mixed Schools the Boys and Girls will be separately reckoned. My Lords will refuse to make Grants to a mixed School under a Mistress only, if it is the only School in a Village. Such a School is not fit for Boys over Eight or Nine Years of Age, and my Lords could not, in any public Measure, recognize such an Age for leaving School.

My Lords will require that in Cases where the Teacher is not provided with a House, or suitable Lodgings, Rent-free, the School Income shall amount not only to the stipulated Sum per Scholar, but, over and above that Minimum, shall include £10 if the School be under a Master, and £6 if it be under a Mistress.

2. Various Remonstrances have been addressed to my Lords on the Subject of the Amount of Attendance required ; and it has been urged that the Condition, as it stands, will confine the Aid afforded within Limits too narrow to admit of any practical Effect.

In this, as in all other Minutes, my Lords aim at Improvement. The mere Substitution of public for local Money is an Evil if it does not stimulate Improvement in a greater Degree than could otherwise be realized. The Attendance required to fulfil the Conditions of the Grant ought to be fixed at a Point beyond the common Practice. In order, however, not to Discourage Effort by the Means taken to provoke it, my Lords will add a Column in the prescribed Register for Absence on certain specified Grounds (for the bonâ fide Entry of which the Managers will be responsible), and Sixteen Days per

Annum may be taken from this Column in making up the total Number of 192 Days.

As a Minimum of Attendance is essential to the Scheme, and as no such Limit can be maintained except by rigid Adherence to One Number, it will follow that no Approximation to the Minimum can be regarded. This is a Point which you will do well to note yourself, and to impress upon others. A Grant would be refused for a Child who made up 175 Days of Attendance. The Morning and Afternoon School constitute respectively Half a Day's Attendance.

3. This Condition requires no Comment.

4. My Lords trust, that by the Operation of the Supplementary Minute adopted this Day, coupled with the next Clause (5.) in the Minute now under Consideration, they may soon be no Difficulty in obtaining certificated Teachers. For the present, my Lords will be satisfied if the School be under a registered Teacher.

Their Lordships will not insist upon having a registered or certificated Teacher as a Condition precedent to the First Payment of a Grant, but to the Second and to all following Payments. More than Twelve Months, therefore, will be allowed for Teachers to get themselves registered, and for the Managers of Schools to obtain such Teachers.

At the First Inspection, if the Teacher were not already registered, you would satisfy yourself of his not being primâ facie incompetent; and my Lords would accept this Assurance until the next annual Payment became due, by which Time, the Teacher in charge, if not certificated, must at least be registered.

My Lords reserve to themselves Discretion in regard to the Duration of the Period within which they will dispense with a certificated Teacher in each School receiving Aid.

The financial Part of this Clause will work as follows in respect to the Grants made under the Minutes of 1846 for augmenting Salaries. At present the Schools where such Grants are paid must be supported by voluntary Subscriptions (independently of other Sources of Income) to the same Amount as the Grant. In future, Seven Tenths of the annual Sum received for Capitation Fees under the Minute of 2d April 1853 may be taken to stand in lieu of so much voluntary Subscription. Thus, suppose a certificated Master of the lowest Class; his Augmentation Grant is £15, and he cannot at present obtain it in a School where a Sum less than £15 is subscribed. In future, however, if a deserving School obtained £10 for Capitation Fees under the Minute of 2d April 1853, the Managers might obtain an Augmentation Grant for their Teacher (the other Conditions being fulfiled) on subscribing £8.

You will observe that the Words of this Clause are enabling, not obligatory. My Lords would not be disposed to put it in force without satisfactory Evidence that the Amount subscribed in each given Case was reasonably liberal under the Circumstances.

6, 7. The Returns of Income and Expenditure now made by the Managers of Schools in the Forms with which they are furnished by Her Majesty's Inspectors will suffice for ascertaining the total Amount per School required to meet a Capitation Grant. So far as the School Fees and the Attendance require to be specially considered, a Form of School Register is hereunto appended. So long, however, as the Particulars which my Lords require to have before them are collected, my Lords do not desire to tie every School down to the same Register.

The Forms appended hereto will require (beyond a Doubt) to be from Time to Time revised; and, in different Parts of the Country, it may be desirable to provide for the Collection of different Facts. It is well to allow Scope for a Variety of Trials, and to approximate to a common Register through the Results of such Experience. In the meantime my Lords wish the Attention of Her Majesty's Inspectors to be directed to the Subject.

Their Lordships will not overlook the State of the School Registers in deciding upon the Augmentation Grants of certificated Teachers.

8. Age is not the Principle on which Children are classified in a School, nor (unless coupled with the Time that they have been under Instruction) does it measure the Merits of their Teachers in regard of their Proficiency; but although this is true, as regards individual Schools and individual Teachers, nevertheless, it is plain that, in proportion as those Scholars who are approaching the Age of Labour do not become also the most proficient in a School, its Influence in producing a well-conducted Generation is not to be measured by the Number of Children in average Attendance upon it, nor by the Standard of its highest Class.

It is therefore of great social Importance to bring increased Attention to bear upon those Children in each School who are approaching the Age at which their Labour becomes valuable, and to make the Measure of public Assistance depend in some degree upon the Connexion between such Age and Proficiency.

It is of course out of the Question for Her Majesty's Inspectors, in the Time that they are able to give to the Examination of a School to break it up from its Classification according to Proficiency, into another according to Age, and a third according to Length of Attendance. All these, however, are Aspects under which a good Teacher should habituate himself to analyze his School.

For the present, and until the Results of further Experience can be collected, it is proposed that the Master should take Measures to enable him at any Time to call out from the ordinary Classes all the Children in School *above Nine Years of Age*, in Two Divisions, viz., of those under, and those over, Eleven Years of Age respectively. This he may very readily do by keeping a separate List of such Children, and habituating them to stand out at some such Call as "Boys above Nine, First [or Second] Division." When this Practice has once been set on Foot, it will only be requisite to give Notice to each Child as he reaches the prescribed Age. On the Day of your Visit, after making the usual Call, the Master would put back all those Boys on whose Account no Capitation Grant is claimed. Having the rest before you, you would record,—

1. *In the First Division how many were able—*

   (a) To read simple Narratives with Intelligence.

   (b) To work from Dictation a Sum in simple Substraction, Multiplication, or Division correctly.

   (c) To write on a Slate from Dictation, with correct Spelling, a simple Sentence twice read to them, first consecutively, and then by One Word at a Time.

2. *In the Second Division how many were able to,*

   (a) Read Books of General Information fluently.

   (b) Work from Dictation a Sum in One of the Four first Compound Rules of Arithmetic correctly.

   (c) Write on Paper from Dictation, in a neat Hand and with correct Spelling, Two or Three simple Sentences twice read to them, first consecutively, and then by a few Words at a Time.

   (d) Point out the Parts of Speech in the same Sentence (orally).

   (e) Answer Questions in the Tables of Weights and Measures (orally).

   (f) Answer a few elementary Questions in Geography (orally), and on other Subjects of useful Information. You should be careful to adapt this part of the Examination to the particular course of study pursued in the School.

You will not be required to keep or forward the Papers of this Examination, but will simply enter the Results in your Report, the Form of which will, in future, contain a suitable Space for the Entry. You will observe that the Examination now proposed to be given is not intended to supersede any Part of that included in the general Examination of the School.

I have the Honour to be, Sir,
Your obedient Servant,
(Signed) R. R. W. LINGEN.

SUPPLEMENTARY MINUTE, DATED AUGUST 20, 1853.

The following Letter in acknowledgment of the receipt of a Copy of the above Minute, has been forwarded to each of the Normal Colleges and Schools, in explanation of the views which the Committee at Cheltenham take of its operation in regard to the support and working of these Institutions.

Cheltenham, October 11, 1853.

(COPY.)

SIR, Cheltenham, October 10, 1853.

I have the honor to acknowledge the copy of the Supplementary Minute, with which you have favoured me. It has been discussed by the Managing Committee, who have desired me to offer the following remarks.

They receive with much satisfaction that portion of it which encourages Pupil Teachers as well as that which seeks to make a "Certificate of Merit" what its name more strictly imports, a testimony to a Teacher's professional merit and practical skill, as distinguished from simple scholarship, or abstract attainments. Believing however, as they do, that their Lordships view the various Normal Institutions as the very fulcrums on which the whole government system must successfully turn, and that their own labours are vitally bound up with their efficient working, the Committee view with considerable anxiety, that portion of the Minute which puts a narrower limit upon the support they must in future look for from the Government. They observe that the gratuity upon each successful candidate for a certificate is to be reduced by one half, even should he be persuaded to remain two years, while it is altogether cancelled in regard of al those who are unable to extend their residence beyond the more usual term of one year. Observing that the alteration professes to meet the complaint that the Normal Institutions are *already inadequately supported*, they can scarcely persuade themselves that some error has not occurred, either in their Lordships' calculation of the operation of the change, or in their own interpretation of it. As they view it after a careful examination of its bearings, they simply observe a curtailment of more than half the support hitherto awarded, and (as they supposed) guaranteed by the Minutes of 1846, of which the present Minute professes to be a supplement. Nor can they discover in any of its other provisions the slightest compensation for so ruinous a diminution of support. It is true that provision is now made for a larger number of Queen's Scholars, and that this class of Students has hitherto been accepted by every Institution as the most important source of income, but if the removal of the limitation upon the number is accompanied with the condition, that one gratuity only can be claimed for two years residence, their *commercial* value is at once taken away. That value has hitherto consisted in their superior prospect of obtaining a certificate of merit, after *one year's residence* above that of any ordinary student. In other words, an ordinary Student with his chance of success after 12 months, was before of more pecuniary importance than a Queen's Scholar can be under the contemplated change. The former might realize to any Institution £50, supposing him to gain after one year a second class certificate; while from the latter can be realized only the gross payment of £37 10s. (i.e. £25 + £12 10s.), a part of which will not be claimable till the close of the second year.

The Committee beg to express their fears that the proposed reduction of assistance from the Public purse will embarrass and mutilate the more flourishing of our Normal Colleges, and complete the decay which had threatened those which have been more and more precariously supported. They feel justified in adding, under a sense of disappointment, that if their own Institution should cease to make good the promises which its Founders held out to its Supporters, the blame will not be owing to their own lack of zeal, but to the unexpected departure from the promises of those original minutes, in faith of which their exertions were commenced.

The effect of Section xii., independently of the pecuniary embarrassment apprehended, will put a stop to the admission, of (1) Students of mature age who shew fitness for the office of Schoolmaster.

(2). Masters or Assistant-Masters who have hitherto possessed no special training, and who are unable to make the sacrifice requisite for a second year's training.

In reference to these latter results, the Committee are anxious further to state their opinion that whatever tends to withdraw from these Institutions men and women of maturer age and principle, who are seeking the office of a Teacher from a right value of its high and holy character, and who by example and their very presence tend to raise and direct the moral tone of younger Students, must be regarded as a positive evil of considerable magnitude. The admixture of older and well-reported candidates for admission with Pupil-teachers who have passed their apprenticeship with credit, present to their minds the ideal of a Normal Institution, from which the most hopeful benefits may be expected.

Adverting to Section iv., the Committee, while thankful for the proposal to encourage the appointment of Teachers on special subjects generally by an augmentation of £100 per annum, believe that there are practical objections to the precise plan proposed; nor can they regard such proposal as a new source of income, except to the extent to which they may be at liberty to curtail existing salaries of those officers who may obtain the proffered augmentation.

I am, Sir, your obedient Servant,

C. H. BROMBY.

To the Secretary, Committee of Council on Education.

ART EDUCATION FOR SCHOOLS.

On Saturday, Sept. 25th, an aggregate meeting of teachers of elementary schools was held in Shaftesbury-hall, Aldersgate-street, to adopt resolutions for effectually introducing the rudiments of art and science into elementary schools. The meeting was very well attended, there being more than 150 teachers of both sexes present. The Lord Mayor had promised to take the chair, but a letter was read from his lordship stating his inability to attend on account of illness, but promising to give every assistance he could to forward the objects of the meeting. Mr. Burchett, the head master of the Marlborough House School, was thereupon called to the chair.

The Chairman said he need not make any observations as to the object of the meeting, which they clearly understood. But it might not be foreign to that object, certainly not to his own position, that he should make a few remarks as to the progress of different institutions which had originated within the last twenty years for the tuition of art, and of widely extended art knowledge in this country. To the best of his recollection an old but unfortunate friend of his, Mr. Haydon, was the first introducer of general education in art in this country. He believed that the school at Manchester, which originated under that gentleman's auspices, was the first established in this country on anything like an extensive scale. Its object was to teach a certain amount of art in connexion with the cotton manufacture, the staple manufacture of Manchester. But it was Mr. Haydon's view that the drawing and study of the human figure comprised all the knowledge of art. Consistently with that opinion the school took a particular figure development, and the manufacturers of Manchester after some trial found—and he thought with great propriety—that the human figure was not exactly the study of that kind of art which was most likely to benefit their manufacture, and owing to that and many other circumstances, the school fell into decay, and after many vicissitudes it was placed under the Board of Trade. This was at the time that the old School of Design existed at Somerset-house. Shortly after the origin of that school Mr. Ewart, who felt great interest respecting the introduction of art education in this country, and some other gentlemen, originated a school in Leicester-square. It took, perhaps to some extent slightly modified, the character of the school at Manchester, the human figure being the main object studied. That school shortly failed for want of support; and afterwards a committee of the House of Commons was appointed, which ended in the formation of the Schools of Design. They were formed essentially for the education of art-workmen and designers; and while in the earlier schools the human figure had been made the staple means of education, so great a prejudice to the figure was created that it was absolutely excluded from these schools. The students were to be trained only in ornament, but the absurdity of this was seen in a short time, and therefore the study of the human figure assumed a position, which was, perhaps, its proper one, of a part of education. Previously to this, classes had been formed in connexion with mechanics' institutions in various parts of the country, which took various specialties. Classes were formed for architectural draughting, for landscape painting, and for the figure. But neither in these schools nor in the schools of design had any attempt been made to impart elementary education in art. They would agree with him that elementary education in art was a different thing from teaching any specialty or particular application of art. In teaching the elements of art it was most essential that the instruction should proceed upon a perfectly sound and true basis. Then, it should be remembered, it would be of no use to give but a small portion of time to this subject. They must make up their minds to devote to it a fourth of the whole time given to studies. Where, as in mechanics' institutions, drawing had been popularised, the pupils had been permitted to draw just that which pleased them, and which, in 19 cases out of 20, was just that which was least fitted for them. That ought not to be allowed. He strongly recommended, whenever drawing was introduced into any of their schools, that the most careful attention should be devoted to beginning well and soundly, and that the pupils should not be allowed to make a false progress—to make a sham of that which ought to be a reality. Their object was not to make all the people artists, but to give that elementary education which might lead in some cases to a particular end.

Mr. Stevenson, Master of the Parochial-school, Lambeth, then stated, that a Committee of Elementary Teachers had been formed, and that a deputation had waited upon the authorities at Marlborough-house to make enquiries respecting the classes intended for Schoolmasters. They were kindly received by Mr. Burchett, the head master of the schools, who informed the deputation that the authorities of that department were anxious to meet the convenience of schoolmasters in every way, and would postpone their final arrangements until such convenience could be ascertained. The report delivered to the committee by the deputation, further stated that the days and hours for the schoolmasters' class might be fixed by themselves; that the lessons would each be of two hours duration; that the class must be, for the present, held at Marlborough House; that two sets of classes would be provided if more than 80 persons wished to join them; that pupil teachers would, for the present, be admitted to the class; that a certificate of proficiency would be given to each student desiring one at the end of the session; and that a gratuity of £5 would probably be added to the certificate, as an inducement to perseverance. The privileges of the students would be—free admission to the class for which they had entered, to the lectures, the library of reference, and to any other advantages the department may possess which are not strictly private, whether they be at Marlborough House, or elsewhere.

Resolutions were then passed in reference to the Schoolmaster's Classes, and a provisional committee appointed to carry them out, and also to establish an Educational Museum, with a lecture-hall and library for the use of Metropolitan Teachers.

NOTTINGHAM AND NOTTINGHAMSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

A meeting of Teachers of Church of England Schools was held on the 24th of September, in the Trinity Church School, Nottingham, for the purpose of forming an Association. The objects at which the Association aims, are the encouragement of friendly intercourse among its members and their mutual improvement. To attain these, it is intended to hold quarterly meetings, at which a paper on an educational subject will be read, to be succeeded by friendly discussion. RICHARD THURLOW, Secretary.

THE BRIGHTON AND SUSSEX CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

Patron: The Lord Bishop of Chichester; President: The Rev. H. M. Wagner, M.A., Vicar of Brighton; Committee of Management: Mr. John Rosenberg, Mr. R. Marsh, Shoreham; Mr. Thomas Trigg, Mr. J. H. Driver, Seaford; Mr. E. J. Marshall; Treasurer: Mr. John D. Trigg; Secretary: Mr. George Jones; Librarian: Mr. T. W. Nichos.

The following are the Rules and Resolutions agreed to at the formation of this Association, at a Meeting held on Saturday, October 1st, 1853, at the Central Schools, Brighton. Mr. J. D. Trigg in the Chair.

I.—That the object of this Association be the mutual improvement of its Members, especially in all those subjects practically connected with the duties and position of the Educator.

II.—That the object of this Association be carried out by means of Lectures, Essays, Discussions, Classes, the circulation of Periodicals, and the formation of a Library of standard Educational works.

III.—That this Association be called "The Brighton and Sussex Church of England Schoolmasters' Association."

IV.—That Schoolmasters, Schoolmistresses, Pupil Teachers, and other Members of the Church of England, be eligible to become Members of this Association.

V.—That Members be elected by vote of ballot in Committee, having been first proposed at one of its Meetings.

VI.—That the Annual Subscriptions to this Association, payable in advance, be as follows:—

Masters resident in Brighton	6s.
Mistresses ,,	4s.
Masters non-resident	4s.
Mistresses ,,	3s.
Pupil Teachers resident	2s.
,, non-resident	1s.
Honorary Members	6s.

VII.—That the management of this Association be confided to a Committee consisting of a Treasurer, Secretary, Librarian, and Five Schoolmasters, to be elected annually, by ballot, at the General Meeting,—five to form a quorum.

VIII.—That the Meetings of this Association be held on the First Tuesday in every month, at 6.45. p.m. at the Central Schools, Brighton, when an

Essay will be read, followed by discussion. Each Meeting to be opened with Prayer.

IX.—That for the extension of the object of this Association, its Members will be glad to co-operate with any local Associations which may hereafter be formed in the County of Sussex.

Communications to be made to the Secretary, Mr. G. Jones, Warwick Street Schools, Brighton, by whom also Subscriptions and Donations of Books, &c. will be thankfully received.

Correspondence.

SIR.—I hope you will pardon the liberty I have taken of addressing you upon the subject of the Union of Schoolmasters.

I have just received a copy of the Rules of the Society from the Honorary Secretary, and I find that the proposed Union of Schoolmasters has been agreed to by those who have taken an active part in the formation of it, and that it is to be a Union, consisting exclusively of *Church* Schoolmasters, to be denominated "The General Associated Body of Church Schoolmasters in England and Wales."

My object in writing these few lines to you upon this subject is to throw out a suggestion both to school teachers and school managers, which I hope will not be lost sight of.

The object of this Society is, to use the words of the second rule, "The bringing together, in closer bonds of sympathy and co-operation, the whole body of Church Schoolmasters in England and Wales." It is contemplated to have annually a General Meeting of all the Masters in England and Wales, who can attend it. The place of meeting is not always to be the same but to be alternately in each of the three divisions into which they divide the country.

It is a common saying that *two* heads are better than *one*, because what one does not think of the other does. That is really a fact. Well, if this be true of *two* heads, we may extend the number to five hundred, if needs be, and what holds good of *two*, will be quite as likely to hold good of *five hundred.* We will suppose, now, only *two hundred* Masters to be congregated together at one of these General Annual Meetings, and that they talk over matters connected with the every-day life of a Schoolmaster—say, the various methods of teaching any subject,—a Bible Lesson, for instance; many different persons will state their different methods, and advance different opinions on the subject; in the course of this conversation they will bring forth the fruits of their experience in teaching this subject, &c. I would ask, then, can a Master attend such a meeting, even if he take no *active* part whatever in it, and merely be a listener, without learning anything? He would have a large storehouse of the experience of others open before him, out of which he might help himself to what he chose, and reject the rest. It seems to me to be impossible for a person to attend such a meeting without being greatly benefited, and if he be a man willing to perform his duty to the utmost of his power, the lesson he would acquire by his attendance would not be lost, but spread its influence to the scholars; he would endeavour to introduce the improvements he had learned, and by that means he would benefit the school, and be a better labourer than he was before he attended the meeting. From this it may be easily shewn that it is the interest of Schoolmanagers to promote the object contemplated by the leaders of this Society when they proposed a General Meeting of Church Schoolmasters, to be held annually, at Christmas—namely, the obtaining the mutual improvement and sympathy of Church Schoolmasters.

Now, there are many good masters, who, unfortunately, have not the means to enable them to attend this General Meeting of Schoolmasters throughout the country, but who, if they could afford it, would be most anxious to be present, and to whom the meeting would be useful, advantageous, and beneficial, not to mention the pleasure to be derived from a cordial and sympathetic feeling among his fellow labourers. The advantages to be derived from such a meeting will, as I endeavoured to shew, be beneficial to the school, and, of course, to the managers also. What I would suggest, therefore, is, that the Managers of National and Parochial Schools should kindly assist such Masters, whose means will not admit of their paying their own expenses to and from the General Meeting of Schoolmasters. The sum expended for this purpose certainly would not be *wasted*, for, as I said before, the Master would try to carry out the improvements suggested to him, and thereby make his school more efficient, and in a better condition. I think that it would be well if school committees and managers generally shewed a little more regard for the mutual improvement and instruction of Schoolmasters, not exactly at this *General* Meeting only, but by subscribing to the funds of the local Schoolmaster's Associations existing in their respective neighbourhoods. I think there are many clergymen who would not object to provide the necessary pecuniary assistance for the Teacher to attend at the General Meeting to be heid at Christmas.

There is another point to which I should also like to advert, and that is this :—If by any means the directors of the various railways in the kingdom could be prevailed upon to grant to any Schoolmaster. desirous of attending the aggregate Meeting, who could produce his ticket of membership as a guarantee that he was going to the General Meeting of the Society, privilege of a journey *to* the place of conference and *back again* for a *single fare*, it would induce very many more masters to attend than otherwise would, and who would stay at home if they had a *double* fare to pay. Taking into consideration the increased number of passengers that would be thus be obtained, the railway directors would lose nothing.

I should be glad if anything could be done in this direction for assisting the poor Schoolmaster towards the object sought by the "General Associated Body of Church Schoolmasters," for I feel convinced that great benefits will arise from the union. As far as I can learn, I am decidedly of opinion that nothing will be attempted in opposition to the clergy and schoolmanagers generally. When once the clergy and Schoolmasters come in opposition, a great amount of evil will be done; but I am very far from entertaining any such opinion as that *that* should be the case.

Hoping you will give this a place in your next publication, and that you will pardon the length of this letter, I am, &c.,

J. T. G.

Sir,—Amongst the various and important uses to which the black-board may be made subservient, there is that of teaching arithmetical notation and numeration.

In our schools, many children will copy on their slates any exercise the Master may write on the black-board; but, how few are those who can correctly and intelligently put down a comparatively easy one from dictation!

Impressed with a deep sense of the importance of a right knowledge of this subject, and anxious to impart it to my scholars, I was led to adopt in my school the following table, which is highly approved by one of her Majesty's Inspectors; and, having found much benefit from so doing, I have no doubt of others who may use, finding the same.

NOTATION AND NUMERATION TABLE.

Billions.			Millions.			Thousands.			Units.		
Huns.	Tens.	Units.	Huns.	Tens.	Units.	Huns.	Tens.	Units.	Huns.	Tens.	Units.
12	11	10	9	8	7	6	5		3	2	1

Having drawn this table on the black-board, and placed it in front of the class arranged in a semicircle, I proceed somewhat like the followin for the first time, namely :—

"Children,—I am going to give you a very nice lesson on Arithmetic, and I hope you will listen to what I say. I do not expect you will learn this without making mistakes; but, if you will pay attention, you will soon avoid these.

"In Arithmetic, figures are arranged in periods, which I have denoted by double lines. The first period is called Units; the second, Thousands; the third Millions; the fourth, Billions; and these may be much more extended.

"The first column in each period is called the Units column; the second, the Tens column; and the third, the Hundreds column.

"Figures are put down in two different ways: first, in lines; and secondly, in columns. They are put in lines when they are placed side by side, or from the right-hand towards the left; and they are put in columns, when they are placed one under another. It is important to notice this difference; for, whilst a figure in the first colmnn denotes the value of unity, or of units; if it be placed on the left side of a figure in the first column, it then denotes ten times the value of unity or of units; and so on, varying every time it is placed to the left. Thus, while the figures, 1, 1, 1, in the first column, denote the value of three times unity, placed in the other column, they denote a different value.

Hundrs.	Tens.	Units.
1	1	1 1 1

"Now, let me see whether any of you can put down 100 in this table. Which period must 100 be put into? How many columns shall you require to put down 100? What are the two first figures in 100 called? Into which column must the ciphers be put? Can you alter this 100 into 101? How many periods shall you require to put down 100?

"Into which column shall you put the unit? Now try to make this 101 into 110, and then into 111, and then into 1111. Try to put down 5005 under 1111, and then try to put down 5050. In putting down as high as thousands, how many periods do you require, and how many columns?

"Let me see if you can put down 100 on your slates. How many figures do you require to put down 100? Where must the ciphers be put? Can you alter this 100 into 101, and then into 111? Try to put down 50 under 111: where will you put the 5? Now try to put down 1000. Alter this 1000 into 1001, and then into 1011, and then into 1111. Put down 3010 under 1111, and then put down 3401, and then 5019, and then 312, and then 40; now add them up. Very well.

"I will ask you a few questions, to see whether you have all understood me. How are figures arranged? Can you name these periods? Are there any more than four periods? What are the columns in each period called? How are figures put down? Is it important to notice this difference?

Very well: you seem to have paid great attention to this lesson, and to-morrow I may extend it."

Such is a brief and important outline of the manner in which I use this table.

C. B.

Sir,—Your correspondent, J. A., seeks to know "how the food of the Horse is sufficiently digested"—seeing that it feeds, like the Ruminant, on vegetable matter, which requires, comparatively speaking, a long time for digestion; and yet it has not the power of chewing the cud, which J. A. supposes is a faculty given to the Ruminant for the purpose of *detaining* the food in its passage that it may be properly digested.

It was this supposition which prevented J. A. from arriving at a right conclusion.

The Ruminant, in its wild state, whilst feeding, is exposed to the attacks of beasts of prey; hence Providence has given it the power of swallowing its food immediately, *without chewing it*, in order that in a short time it may procure a needful supply; which, in the form of *cud*, is afterwards masticated at leisure.

But, in the case of the Horse, J. A. will observe that it chews its food properly *before* swallowing it, and consequently there is no necessity for the return of the food to the mouth for the purposes of mastication, as is the case with the Ruminant.

J. A. will find this subject treated in an interesting manner, in Carpenter's Animal Physiology, arts. 190, 191, and 198.

NESCIUS.

PAPERS FOR THE SCHOOLMASTER.

No. 34. DECEMBER 1, 1853.

Home Lessons.

The time seems to have come,—

"When prizing knowledge as her noblest wealth,
"And best protection, this imperial realm,
"While she exacts allegiance, does admit
"An obligation on her part, to teach
"Those who are bound to serve her and obey:
"Binding herself by statute to secure
"For all the children whom her soil maintains
"The rudiments of letters; and to inform
"The mind with moral and religious truth."

The acknowledgement of this duty by Government has, within the last fifteen years, caused a great improvement in our educational projects. Men of all parties and sects agree that nothing but the provision of a sound education for the population of our land can preserve England in its present position amongst the nations. As to what constitutes sound education different views obtain. Some—and these constitute a large majority, and one which includes the most influential in the land—contend that our instruction must have a religious basis; that without this we cannot "train up a child in the way he should go." Others would organise a system of instruction which shall take cognizance only of the body and mind, excluding the inculcation of truths which are the subject-matter of Revelation. They think that for the moral purposes of education we might use a system of ethics in the place of Christian truth. Other opinions are current amongst us, both as to the nature of the required education, and the means by which it is to be applied. All thoughtful men, however, are agreed as to the inadequateness of the old style of teaching for accomplishing the high and noble ends of real education.

A desire for change has thus been engendered. We have had political and religious revolutions; now we are passing through an educational one. In bringing about great changes, men are apt to run from one extreme to the other. And in working out of the old into the new state of things, they will often neglect to retain what was good in the former, and will cast aside its usages indiscriminately. So it has been in the present case. For the last fifteen years we have been too prone to look upon everything which proved a part of the "old system" as worthless. Teachers have too often become educational Puritans—alive to the defects of the old system, blind to its better features. As often in revolutions there is, after impulse has given place to calm thought, a re-action in favor of practices at first discarded, so there can now be seen the growth of a general disposition to look on the despised "old system" with a kindlier eye. In no one point, perhaps, is this more forcibly shown than in the importance which is now being attached to Home Lessons. In our first zeal to vivify instruction, and to make it subserve the ends of real education, lectures or lessons from the teacher were substituted for independent efforts on the part of the children. Before the memory had been unnaturally loaded; now we abstained almost entirely from exercising it, and addressed ourselves almost solely to the understanding; before the children had done the work, now, the burden was thrown upon the teacher. A few years' experience has, however, convinced us that this style of teaching makes *ready*, rather than *exact* and *full* minds. To remedy this defect, all good schools now require lessons to be learnt or exercises written at home. Such being the case, it may not be unprofitable to show a few advantages which may accrue from the old plan when it is vigorously and faithfully applied.

One of the greatest hindrances to the progress of education is the very short time during which children remain at school, and are in contact with the educator. To remedy this prominent evil is the wish of all concerned in the work. By increasing the efficiency of the school, and supplying instruction which may be useful in the field, the mine, or the manufactory, much may be done towards inducing some parents to make sacrifices to keep their children at school. Legislation seems the only real remedy for the disease. "It must be done, can be done, only by the solemn voice of the Law, protecting the child alike from parent and employer," observes the Rev. F. Watkins. Government, by recent enactments, seems to be gradually, but surely, following this advice, and the example of many European states, distinguished for the vigour of their educational institutions. "'Tis a consummation devoutly to be wished." Meanwhile it behoves teachers to make the most of the little time they already possess. Five or six hours per day, for only a few months, is but a short time when compared with the magnitude and importance of the work to be accomplished. We should recollect, however, that a little previous knowledge of a subject assists us in acquiring more; indeed, we go to our work with greater zest, because better able to understand what we are doing. So it is with children. The lesson at home will beget a thirst for more information upon the subject; make them more eager to receive the teacher's instructions next day, and cause him to be better and more quickly understood, thereby saving him labour of body, and, it may be, vexation of mind. The mechanical part of instruction being done at home, the teacher will have more time to lead them to learn those lessons which will make them better and more useful members of society. Thus the period of school life is extended by means of the Home Lesson, not only because it adds the half hour or hour's work every evening, but because it allows the master to make use of the time in school for the higher purposes of education—an end to which instruction is but a means.

So many subjects have claims upon the attention of the teacher during the short school-time of the child, that the most he can hope to do is to furnish the child with the instruments of education, to implant a desire for knowledge, and to direct his endeavours for self-improvement into a proper channel. Books are the great source of information in the period of manhood. How necessary then that teachers should test whether the meaning of what is read is comprehended; whether his boys can study independently. Home lessons form one of the best tests, while, at the same time, they are an excellent mental discipline for the scholar. He parts company with his teacher for a time, is thrown upon his own resources, and his position in his class next day depends upon his own individual efforts. He is taught and directed how to improve himself, and it is to himself, in a great measure, he must look when he bids adieu to the school, to enter the field of labour. A spirit of self-reliance, and manly independence, will thus be fostered, while perseverance, accuracy, and neatness, will be rewarded by the approval of the teacher, and the progressive status of the boy in his class. Home lessons then are not to be overlooked in mental culture.

The apathy of parents disheartens many a pains-taking, laborious teacher. Those who ought to take the liveliest interest in their children's welfare, seem— owing to their ignorance, the source of thoughtlessness—the most determined to clog his efforts, and to render his labours futile. This apathy would be removed, could the parents visit the school, and look upon themselves as parties interested in its prosperity and success. The little time at their command, coupled with a disinclination to visit a place, the associations of which to them are anything but pleasant, renders this almost impossible. The school then must be taken to them. Give their children lessons to prepare at home. This will make the parents see something of the work of the school, and prompt enquiry upon other points. A zealous conscientious teacher has nothing to fear, everything to gain, from the results of this enquiry. Evening lessons serve to call the attention of the parents to the useful knowledge the children are acquiring in the school, and tend to create a home influence favourable to the labours of the schoolmaster. The parents will become interested, and the boys being called to give an account of their day's work, will be more attentive during the day, while the parental examination will fix more deeply upon their minds what has been communicated. The effort to express their thoughts will be an exercise in composition for the boys, and increase their vocabulary. It is by thus endeavouring to carry the school to every fireside, that we can best hope to reach the parents and effect any change in their habits. That a change for the better is too often needed, no one will deny. Other parents, besides those of King Somborne, can feel disappointed " if the evening task is beyond them," and it is not only Hampshire homes which may be cheered by the contents of the school " Satchel." Make the children good readers, and the poor man's cottage will become more attractive than the taproom or the skittle-ground. The parents being interested in the school, will be tempted to let their children remain longer there, and to see to their regularity and punctuality while there, more than they otherwise would have done. "Sir,—It gives me such pleasure to see what my boy is doing, that I would even live on bread and water to send him longer to school," was the remark of a parent, whose love for his boy had been quickened, by his interest in favour of the school being excited.

Home lessons require the children to possess a few books. May not habits of care and economy be thus fostered, and encouraged? Those few books may, if rightly used by the teacher, form the nucleus of the library which may be found in the cottage of the man. Too often school children are a nomad race, wanderers from school to school, "rolling stones, gathering no moss." Whether after being supplied with books, at one school, they will be in such haste to go to another, is a question interesting and worthy of consideration by practical educationists.

Home lessons may be looked upon in a moral aspect. The boy, who has his books to take care of, will be less likely to loiter upon his way home, than the one who carries no reminders of the place he has just left,—who considers thought to be banished from his mind, till he shall cross the threshold of the school next day, and who has no property over which to keep an eye. The orderly demeanour of Scotch, as compared with English children, when leaving school, has been explained by the number of books the Scotch child has to carry home every evening. The evening lessons must be prepared; thus the boy may be kept from the streets at night, and be removed from their contaminating influence.

In order to ensure the above results, need it be said that the lessons must be made interesting, both to scholars and parents. The Dean of Hereford, who imputes much of the success of his far-famed King Somborne School to home exercises, gives in his Suggestive Hints, "Subjects for written exercises, as well as lessons to be committed to memory,—as specimens for aiding teachers in this matter." Sums to be worked are very attractive to the parents, and may be made the vehicles for bringing home startling facts concerning expenditures, &c., in the hands of a practical teacher.

The teacher must be careful in requiring the lessons to be really done, in guarding against deceit, in paying attention to neatness of execution, and other minute matters, which would have received attention, had the same lessons been done in school under his supervision. The labour of all this will be well laid out, and will yield good substantial fruit.

T. J. H.

Amusements in Numbers.

In an earlier number some curious properties were shewn, belonging to the figure 9. Other peculiarities may be added which are more or less dependent upon the principle then explained.

(1). However many times we add 9 to itself, or what is the same thing, whatever multiple we take of 9, we shall find that the sum of figures which form the result is divisible always by 9.

Ex. 3 × 9 = 27, and 2 + 7 = 9. So 5 × 9 = 45, and 5 + 4 = 9, and again 12 × 9 = 108, where again the sum of the digits makes up 9.

(2). By adding together the whole number of the digits from 1 to 9, we obtain 45, and these figures, when added together, again make 9. This result is intelligible on the principle of average, for 5 being the middle figure of the digits between 1 and 9, the sum of the whole 9 digits must be the same as if they were each of them 5; and 9 × 5 = 45.

(3). The sum of the two lines made up of the digits, first in their right order, and then in their reverse order, is composed of units which, when added again, exhibit the magical number 9. Thus—

$$\begin{array}{r} 1\,2\,3\,4\,5\,6\,7\,8\,9 \\ 9\,8\,7\,6\,5\,4\,3\,2\,1 \\ \hline 1\,1\,1\,1\,1\,1\,1\,1\,1\,0 \end{array}$$

(4). Write down the digits (omitting the 8) and multiply by 9, and the product again produces the 9 expressed in units,—

$$\begin{array}{r} 1\,2\,3\,4\,5\,6\,7\,9 \\ 9 \\ \hline 1\,1\,1\,1\,1\,1\,1\,1\,1 \end{array}$$

From this it must immediately follow that the same quantity multiplied by 18, instead of 9, must produce a row of as many *twos*. If multiplied by 36, 45, and 81, we shall have successively as many *fours*, *fives*, and *nines*.

The figure 3 possesses an idiosyncracy, similar to that of 9. As of 9, so of 3, the rule will be found to hold true that if any number be taken which is divisible by 3, then the sum of its figures is likewise divisible by 3. Thus, 75 and $7 + 5$, or 12, are each divisible by 3. So, 129 and $1 + 2 + 9$, or 12 are both divisible by 3.

(5). The result arrived at in (4) depends upon a general principle. If one number multiplied by a second exhibit a product made up of 1, it will follow that if the first be multiplied by twice the second, the result will be made up of the like number of the figure 2. Thus, we find $37 \times 3 = 111$, then it must follow that $37 \times 6 = 222$ and $37 \times 15 = 555$ and $37 \times 24 = 888$.

Upon a similar principle we arrive at a short method of expressing decimal fractions by vulgar fractions. Thus, $\frac{1}{9} = .\,1111\dot{1}$. Whence it follows that $\frac{2}{9} = .\,2222\dot{2}$, and so on up to $\frac{9}{9} = .\,9999\dot{9}$. From this we observe that the largest possible decimal $= \frac{9}{9}$, or the finite quantity unity. To proceed on the same principles, we find by division, that $\frac{1}{99} = .\,0101\dot{0}\dot{1}$, whence it follows that $\frac{13}{99} = .\,1313\dot{1}\dot{3}$; $\frac{45}{99} = .\,4545\dot{4}\dot{5}$.

By pursuing a similar process of reasoning, we see the following rule established: that, *to convert a recurring decimal into a vulgar fraction, we must place the figures that recur in the numerator, and place in the denominator as many nines*.

Notes of Lessons.

CLIMATE, No. II.

I. The second great cause of difference in climate is *elevation*. Naturally we might expect it would be warmer on the top of a mountain than at the bottom, because it is nearer to the sun, but this is not the case. If we go into a room in which there is no fire on a cold day in winter, we feel cold; why is this? Because the *air* of the room is cold, hence we see that the temperature of a place depends principally upon that of the *air* at that place. In our last lesson we learnt that the earth radiates its heat; now what becomes of the heat thus radiated? It is absorbed (explain) by the air, which necessarily becomes warmer; but as we ascend a high mountain, we shall find the air becomes thin and clear, or rarified; and *rare* air requires more heat to warm it than *dense* air does; so that everywhere the temperature is lower, the greater the elevation above the sea level.

Illustration. – The mountains in the torrid zone have their summits covered with perpetual snow. Every variety of climate is exhibited on the same mountain as you ascend. Thus the temperature diminishes in two directions, from the equator to the poles, and from the low grounds to the elevated regions, e.g., Etna, Teneriffe. Everywhere over the world there is a point of elevation where the temperature is always below 32°, the freezing point, and perpetual snow covers the land above this point, which is called the *snow-line*. The *snow-line* not highest at the equator. (Reason to be drawn from former lesson.) It is above the summit of the highest British mountains.

This decrease of temperature with the elevation above the sea-level, causes a greater amount of land in the torrid zone to be habitable, than otherwise would be. The cities of Mexico and Quito, notwithstanding their proximity to the equator, enjoy a delightful climate, because of their elevation, the latter 9,000 feet above the level of the sea. The table lands of the Andes, the Deccan, and the Punjaub owe their temperate climate to the same cause.

A further *proof* that the temperature of a place depends a good deal upon its elevation is, that on ascending a mountain, for instance one of the Himalaya mountains, we find a change in the plants and trees similar to that observed on passing from the torrid to the frigid zones. (Draw from the children that each particular plant, from the *palms* of the tropics to the *lichens* and *mosses* of the Arctic regions, requires a certain temperature for its development.) M. S.

BRIEF NOTICES OF NOTES OF LESSONS.

The Storm on the Lake, by G. S.—These notes contain :

I. Explanation of terms.

II. Vivid description of the scene.

III. Lessons. 1. We are exposed to sudden danger. 2. We should go to Christ in trouble.

IV. Application.

We must refer G. S. to a former number for our opinion as to the treatment of Scripture narratives, as there is nothing peculiar in these notes to call for particular criticism. We may, however, point out that G. S. has fallen into the too common error of explaining words apart from their connection.

Iron, by Jacques.—Jacques proposes first to get out its *forms*, and then to treat each separately, noticing their properties and their uses. The information is sound, but the methods defective. A better arrangement would be to take their uses, and from these train out their properties. On the methods of collective teaching, Jacques, and many others who favour us with notes, would do well to *study* the invaluable observations by the late Mr. Fletcher, on the design and mode of gallery teaching, which appeared, we think, in the Report for 1850-51. Where the gallery is not thus employed, it usurps valuable space, and occupies time which can be ill-spared from the ordinary, but all-important, subjects of school instruction.

Pin, by R. N.—Subject considered in its parts, material, manufacture, and uses. A better arrangement would have placed the uses as inferences from the parts, thus causing one thing to grow out of another Facts should never be given till the want of them is felt and a desire for them excited.

Educational Intelligence.

UNITED ASSOCIATION OF SCHOOLMASTERS.

PRELIMINARY CONFERENCE.

In accordance with a suggestion contained in Mr. Edward Hughes's letter to the Editors of the *Educational Expositor*, on the subject of a United Association of Schoolmasters, a meeting was held on the 19th of last month, at the St. Thomas Charterhouse Schools, London, for the purpose of making the necessary arrangements for convening a general meeting of schoolmasters at Christmas next. It was not thought necessary to invite the attendance of any very large number of schoolmasters on the occasion, but care was taken that the schoolmasters of the various Protestant denominations should be represented at the meeting. Notice of the meeting was sent to about forty teachers in and about London, and out of these the following were present:—

Mr. Dunning, Master of Method, Home, and Colonial School Society;
Mr. McLeod, Head Master of the Model School and Master of Method in the Royal Military Asylum, Chelsea;
Mr. Edward Hughes, Head Master of the Royal Naval Tower School, Greenwich Hospital;
Mr. Daintree, Head Master of the Model School, Highbury Training College;
Mr. Coghlan, Head Master of the Juvenile School, Home and Colonial School Society;
Mr. Hassell, from the Home and Colonial School Society;
Mr. Page, Lambeth Chapel Wesleyan Schools;
Mr. Baines, Clapham British Schools;
Mr. Ryder, North London British Schools;
Mr. Meen, Bloomsbury Chapel Schools;
Mr. Gover, Limehouse Wesleyan Schools.

N.B.—The five last-named gentlemen attended as a deputation from the "London Association of British Teachers."

Mr. Self, National Schools, West Ham, Essex;
Mr. Reid, National Schools, Plaistow;
Mr. Day, National Schools, Staines;
Mr. Simpson, Queen's Schools, Kew;
Mr. W. Hammond, St. Thomas Charterhouse Schools;
Mr. Cole, House of Occupations, St. George's-road, Southwark;
Mr. Kemp, Camden School, Peckham;
Mr. Braid, Great Western Railway Schools, New Swindon;
Mr. Baker, St. John's National Schools, Hoxton;
Mr. Diggens, Royal Military Asylum, Chelsea;
Mr. Hartland, Royal Naval Upper School, Greenwich;
Mr. Abbott, Archdeacon Cambridge's Schools, Twickenham;
Mr. Jeffery, Parochial Schools, Hackney;
Mr. Brown, Radnor-street Schools, St. Luke's;
Mr. Carvill, National Schools, Epsom;
Mr. Chalklen, Hart-street Schools, Covent Garden;
Mr. J. Hammond, Parochial Union Schools, Norwood;
Mr. Ockendon, Holland Farm School, Kensington.

Mr. Dunning was unanimously called to the chair. Mr. Tilleard was requested to act as Secretary *pro tem.*

[After addressing the meeting on the general question before them, the Chairman called upon the Secretary to state the specific objects for which the meeting had been convened. The Secretary afterwards read several letters from gentlemen who were unable to attend the meeting, expressive of sympathy with its objects, and promising co-operation.]

The following resolutions were then brought forward and discussed :—

1. Moved by Mr. McLeod, and seconded by Mr Self, —"That it is desirable to establish a General Association of the Schoolmasters of Great Britain, with a view to the furtherance of interests common tō the whole profession."
2. Moved by Mr. Daintree, and seconded by Mr. Reid,—"That such an Association should embrace all Teachers, who acknowledge the essential doctrines of Christianity, and the sufficiency of Holy Scripture, as the rule of faith and practice."
3. Moved by Mr. Simpson, and seconded by Mr. Gover,—"That this meeting proposes that the Association be called 'The United Association of Schoolmasters of Great Britain.'"
4. Moved by Mr. Hassell, seconded by Mr. Meen,—"That the leading objects of the Association should be the discussion of all questions connected with the subject of Elementary Education, and the expression of the collective opinion of Schoolmasters on matters affecting their professional interests."
5. Moved by Mr. Kemp, and seconded by Mr. Ryder,—"That the discussions and correspondence which have been published, during the past few months, in the *Educational Expositor*, evince a wide-spread disposition on the part of Schoolmasters in favor of the establishment of such an Association, and justify the belief that the time has arrived for carrying out this object."
6. Moved by Mr. Day, and seconded by Mr. Baker, —"That it appears to this Meeting to be desirable that a General Meeting of Schoolmasters should be held at Christmas next, for the purpose of organizing the Association."
7. Moved by Mr. Page, and seconded by Mr. Abbott, "That this Meeting assume the responsibility of convening such a General Meeting, and appoint a Committee to carry out the objects indicated in the foregoing resolutions. That the Committee be requested to draw up a scheme for the constitution and management of the proposed Association, to be submitted for approval to the General Meeting to be held at Christmas."

All the foregoing resolutions were carried unanimously, after discussion on each. The discussion was chiefly concentrated on Resolution 2, on which a very animated and lengthy debate took place. Mr. Simpson proposed, and Mr. Gover seconded, as an amendment to this resolution,—"That this Association shall consist exclusively of Masters of Public Elementary Schools." The amendment, having been put to the Meeting, was lost by a large majority. A second amendment was proposed by Mr. Meen, and seconded by Mr. Kemp, to the effect that the words, "And the only foundation of true education," be added to the resolution. But as there was not sufficient time for a full discussion on this amendment, it was withdrawn, on the understanding that the question would be again brought forward at the General Meeting. The original resolution was then pue to the Meeting, and carried *nem. con.*

The 31st of December was fixed as the day for holding the General Meeting.

The following gentlemen was appointed as a Committee, with power to add to their number:—Messrs. Dunning, Tate, McLeod, Hughes, Daintree, Coghlan, Page, Simpson, Day, Abbot, Baines, T. Crampton, Ryder, Meen, Kemp, Gover.

Mr. Dunning was requested to act as Treasurer.

The thanks of the Meeting were voted to Mr. Dunning for his able conduct in the chair, and to the Rev. W. Rogers for his courtesy in granting the use of the school-room for the occasion.

J. TILLEARD, *Secretary pro. tem.*

CIRCULAR OF CHURCH SCHOOLMASTERS' ASSOCIATION.

[We are requested to publish the following circular of the Church Schoolmasters' Association. It has been extensively distributed, but may not have reached many of our readers:—]

Dear Sir,—I have the honor to forward a copy of the proposed rules of the General Associated Body of Church Schoolmasters. You will kindly take the earliest opportunity for acquainting all Church Teachers, in your immediate locality, with the general aim of the body, and I shall feel obliged if you will favour me with the names and addresses of any Schoolmasters resident in your neighbourhood.

The first General Annual Meeting is proposed to be held, in the southern division, during the coming Christmas vacation; when the rules will be submitted for adoption, General and District Officers appointed, &c. &c.

Schoolmasters' Associations are invited to send deputations to the Christmas Meeting, previously providing them with a list of persons to be proposed as General and District Officers; copies of such lists, together with any resolutions intended to be discussed at the said meeting being forwarded to the General Secretary, Mr. A. Boardman, 5, Clevedon-street, Park-road, Liverpool, on or before the 10th day of November next.

If you intend being present at the Christmas Meeting, please give me early notice of your intention, and at the same time suggest the day and place of meeting you consider would be most convenient, as the selection will depend upon the choice of the majority of those intending to be present.

I am, Dear Sir, yours truly, &c.,

——————— HON. DIS. SEC.

Subscriptions for the ensuing year are now due, and may be forwarded to the District Secretary, in postage stamps, for sums not exceeding three shillings, and if above that amount, in a Post-office order, payable at

RULES.

Name.

That this society shall be called "The General Associated Body of Church Schoolmasters in England and Wales."

Object.

The bringing together, in closer bonds of sympathy and co-operation, the whole body of Church Schoolmasters in England and Wales.

Members.

That any Church Schoolmaster, in England or Wales, may become a member by contributing, on or before the Annual Meeting, *one shilling*, as a subscription for the succeeding year, and each and every such member shall have a vote in the election of General and District Officers, have his name inserted in a list of members for that year, and receive a report, containing that list, as soon after the Annual Meeting as it can conveniently be printed.

Government.

That the business of the body be conducted by a Committee, composed of the General and the District Officers, who shall be elected annually; viz., for the General Body, a President, a Treasurer, and a Secretary, and the same number of officers for each district.

Election of Officers.

That at least one month previous to the General Annual Meeting, each district shall elect its own President, Treasurer, and Secretary, and record its votes for the General Officers, each member being entitled to one vote. Any member shall be eligible for election as a General Officer, but one of the General Officers shall be resident in the northern, one in the midland, and the other in the southern division; therefore if two persons resident in any one division obtain a majority of votes, the one having the greatest number, shall hold the office for which he is elected, but instead of the person having the lesser number, the one next to him in votes, but residing in a different division, shall be considered as duly elected to one of the other offices.

Duties of General Officers.

That the President consult with the Secretary and the Treasurers on all matters affecting the interests of the body, and examine all accounts transmitted to him by the Secretary, previous to their payment by their Treasurer.

That the Treasurer receive all contributions, pay all accounts previously audited and signed by the President and Secretary, and keep an account of all receipts and payments, the same to be submitted to the Committee for their approval. He shall also be consulted by the President and Secretary on all matters of importance relating to the general body.

The Secretary shall correspond with the District Secretaries, give them all necessary information upon the general business of the body; consult with the President and Treasurer on questions affecting its interests, and not take any important steps without their full consent. He shall also attend the General Meetings in his official capacity.

Duties of District Officers.

All district business shall be conducted by its President, Treasurer, Secretary, and Committee, to be elected annually by the members of the said district. The District Secretaries shall correspond with the General Secretary and with Church School Teachers in their respective districts, and furnish the General Secretary with complete lists of the members on or before the 1st day of December in each year. They shall also attend the District Meetings; consult with the District Committee on all general business matters, and not take any decisive steps without their assent. The District Treasurers shall receive the contributions of their respective districts and forward the same to the General Treasurer.

Committee Meetings.

The Committee shall have the entire management of the affairs of the body, and shall meet, when summoned by the General Officers either by their own authority, or upon receiving a requisition to that effect signed by not less than six District Officers. All questions shall be decided by a majority of members present, seven forming a quorum.

District Meetings.

That District Meetings be held at such times and places as may be most convenient to the members of each district, provided they do not interfere with the General or the Committee Meetings.

General Meetings.

That General Meetings be held at Christmas, and in each of the three divisions alternately.

Alteration of Rules.

No alteration shall be made in these rules except at an Annual Meeting, notice of which meeting, with the nature of the alterations proposed shall be given one month previously in the principal Educational Periodicals.

DISTRICTS.

1, London, comprising the counties of Middlesex, Surrey, Kent, Sussex, Hants, and Berks.

2, Lancashire, comprising the counties of Lancaster, Chester, Salop and Stafford.

3, York, comprising the county of York.

4, Birmingham, comprising the counties of Warwick, Worcester, Hereford, Monmouth, Gloucester, and Oxford.

5, Northampton, comprising the counties of Leicester, Northampton, Huntingdon, Bedford, and Bucks.

6, South Western, comprising the counties of Wilts, Somerset, Dorset, Devon, and Cornwall.

7, Cambridge, comprising the counties of Norfolk, Suffolk, Essex, Hertford, and Cambridge.

8, Durham, comprising the counties of Notthumberland, Cumberland, Westmoreland, and Durham.

9, Nottingham, comprising the counties of Derby, Nottingham, and Lincoln.

10, North Wales.

11, South Wales.

DIVISIONS.

I.—Southern, including the London, South Western, and Cambridge Districts.

II.—Northern, including the Lancashire, York, and Durham Districts,

III.—Midland, including the Birmingham, Northampton, Nottingham, North Wales, and South Wales Districts.

Agreed to, at a meeting of Secretaries, at Rugby, Sept. 9th and 10. 1853.

J. T. RATHBONE, *Chairman.*
B. SIMPSON, *Hon. Secretary.*

SIR,—I beg to forward you a copy of a memorial for insertion in your Paper in December, if your can kindly afford space for this purpose.

Her Majesty's Inspectors, the Rev. Canon Moseley, and the Rev. W. J. Kennedy, have kindly promised to present it, and to support its prayer.

It is now signed by about 600 Church Schoolmasters in England and Wales. As the presentation will not take place quite so early as was expected, signatures can yet be received. Church Schoolmasters desirous of signing it, should forward their name, school, and town, to me, *on a detached piece of paper.*

I am, Sir, your obedient Servant,

A. BOARDMAN, Hon. Sec.

To the Right Honourable, the Lords of the Committee of Council on Education.

THE RESPECTFUL MEMORIAL OF THE UNDERSIGNED ELEMENTARY TEACHERS OF CHURCH OF ENGLAND SCHOOLS,

HUMBLY SHEWETH,

That your Memorialists are deeply impressed with the advantages which have resulted from the operation of your Lordships' Minutes, in raising the standard of Education and improving the position of the Teacher.

That your Memorialists while thankfully acknowledging these benefits, humbly desire your Lordships' favourable consideration of the following subjects, believing their adoption, in conformity with recommendations hereinafter named, would still further advance the important cause of Education.

That your Memorialists feel, that both with regard to their examinations for certificates of merit, and also with regard to the examinations of Pupil Teachers, the great number of existing Text Books on each subject, the absence of an authorized list, and the want of a classification of subjects, produce much uncertainty in their plans of study, and conduce to that general superficiality of attainment of which Her Majesty's Inspectors have so frequently complained. They, therefore, earnestly desire your Lordships to grant a list of Text Books, (as has already been done in the Broad Sheet for Scotland,) and some such classification of subjects, as that suggested by Professor Moseley, in his Reports for 1848 and 1851. And further, the great improvement that has been made in the Text Books on Elementary Education since the period when your Lordships' schedules of books were prepared, seems to your Memorialists to render desirable a revision of the existing schedules, enabling School Managers and Teachers to obtain upon your Lordships' terms many valuable books not comprised in the said schedules.

That your Memorialists believe that many able Teachers are induced to leave the profession, as at present they have no prospect of suitable promotion for lengthened services and the most successful exertions; and they further believe, that men connected practically with the work of education, are capable of accurately testing its character and results.

They, therefore, earnestly desire your Lordships to take into your consideration the suggestion of Her Majesty's Inspector, the Rev. W. J. Kennedy, in his Report for 1848, vol ii., p. 184, with respect to Sub-Inspectors

They believe, the opening of such a field of promotion to the deserving and efficient Teacher, would retain in the profession much valuable aid, and be an incentive to fresh exertion on the part of all.

That your Memorialists would respectfully remind your Lordships, that in 1849, the Privy Council on Education held out hopes, that the subject of

Annuities to Elementary Teachers, as recommended by the Rev. Professor Moseley, (Minutes 1849, pp. 807-815,) should be considered.

There are many facilities for the Schoolmaster's obtaining aid in case of sickness, and making provision for his Widow and Orphans at his death; but no Assurance Office allows him that rate of interest which, according to his ascertained shortness of life, your Memorialists believe he is entitled to expect. The Rev. Professor Moseley has advised that a Superannuation Fund should be created for aged Teachers, and your Memorialists would venture to add their earnest entreaties to his valuable and disinterested suggestions; but they would at the same time, respectfully invite your attention to the fact, that whilst the number of certificated Teachers bears so small a proportion to the uncertificated, it would be apparently a hardship to deprive those who lived in less favoured times, and many of whom rank amongst the most successful Teachers, of the advantages such a fund would secure.

Your Memorialists, therefore, humbly request that your Lordships will be pleased to take into your favourable consideration the foregoing Memorial.

And your Memorialists will ever pray, &c., &c.

SOUTH STAFFORDSHIRE AND NORTH WORCESTERSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The second annual dinner of this Association took place on Friday afternoon last, at the Dudley Arms Hotel, Dudley. The hour appointed for the dinner was three o'clock, but as the Right Hon. Lord Ward, who it had been announced would preside on the occasion, had not arrived at that time, the dinner was postponed until four o'clock, when it became known that his lordship had supposed that the dinner would take place at a late hour, and as the noble lord had not arrived in the town, the chair was taken *pro tem.* by the Ven. Archdeacon Hone. After dinner the Secretary, Mr. J. Sluter, Master of the St. Edmund's School, Dudley, read the report: —

It congratulated the members on the success of the association, which it observed had been promoted by unity among the members, by the kind and ready manner in which the clergy and members had come forward to give lectures, and to read papers upon the most important educational subjects, and by the great support afforded both by the clergy and laity in their subscriptions, donations and presents of books to the library. After stating the anxiety of the members for the stability of the association, the report went on to say that to secure this stability a committee had been formed, composed of an equal number of both clergy and schoolmasters, which committee had proved a valuable means of carrying out the objects of the association. The report next enumerated the lectures delivered and papers read by both the clergy and schoolmasters during the past year, and acknowledged the valuable services of the Rev. J. B. Bowlby, who, having finished his course of liturgical instruction, was about to withdraw from further lecturing for the present. The subject of the library was referred to; it being stated that out of the income of the past year (which amounted to £39 5s. 7½d) £30 3s. 9d. had been expended in the purchase of standard works, and that the library now consists of two hundred volumes of standard literature of this country. Among these works was noticed Dr. Kitto's, Horne's, Rollin's, Hooker's, Soame's, Southey's, Dr. Barrow's, Waddington's, Hallam's, and Lardner's. Donations of books, it was stated, had been presented by the Rev. J. H. Sharwood, the Rev. J. B. Pugh, the Rev. W L. Cox, the Society for Promoting Christian Knowledge, and by Mr. Wilson, of Glasgow. The library, and lectures by the clergy, with drawing lessons, was, the report added, opened to pupil teachers and schoolmistresses, upon payment of the small sum of 2s. 6d. per annum. Thirty members had enjoyed the benefits of this society during the past year, and these benefits were, through them, being extended to their scholars, the number of whom, at the present time, amounts to upwards of three thousand. The report concluded with the remark that this association had been the means of enabling the schoolmasters of this district to obtain a large amount of information on all subjects, especially Biblical, and also of fostering a kind and friendly feeling among the members; that by these means the children who were under their care would receive a sound scriptural education, which education, with the blessing of God, would make the rising generation loyal and faithful subjects of their Queen, and dutiful and upright servants of their employers; bnt without a religious education they would prove a curse to their country, their irreligion rendering them adverse to all moral control, and their ignorance causing them to regard their masters as their enemies, while their strength as a body would make them dangerous to every class of society.

The Rev. J. P. Norris, after expressing his regret that his friend and colleague who was his senior, had been obliged to leave the room, proceeded to deliver an able and powerful speech. He observed that nothing could be so refreshing to him and his colleague in their work as meetings like the present, and those of a similar character. He had had the pleasure of attending last year in that town one of the most encouraging meetings which had come within his knowlege. Such meetings were calculated to strengthen his hands and to nerve his heart in his somewhat arduous labours among them. But they were pleasant and encouraging to him in another and more important point of view. He could not but regard meetings like the present as bearing an emphatic and important testimony to the fact that the right definition of education was recognized in the district – that education in the district of Dudley and South Staffordshire generally was understood to be what education should be—the training out of all that tended to make a man fit for the service of his Master—that it was not merely the instruction of the head, not merely the training of the heart, not merely the education of the hand, but that it was the education, the developement of head, hand, and heart for the service. He regarded these meetings as bearing testimony to the truth of this definition. They had represented there the schoolmasters, thus bearing testimony to the importance of the intellectual part of education; they had also represented there the employers of children in after life, and they had also present the clergy on whom devolved the spiritual care of children—the training of their hearts; and this was a standing proof that nothing short of religious training was to constitute education in this district—that the hand and the head should be trained and educated together. He could not sit down without alluding to an article which he had read in the *Times* as he came along in the train that day, in which this subject, he regretted to say, was alluded to in a different spirit. It was there said that the present Government machinery with regard to education was clearly failing of its purpose — that it could not be said of the present scheme of education that it fell short of the mark but that it was in a wrong direction—that the Government must begin over again, and that in order to do the work of National Education they must divorce the secular from the religious element – that they must leave the parents of children the duty of providing religious education. He (Mr. Norris) rejoiced to say that this was in direct opposition to the spirit of everything that had emanated from the Government. The principle conceded in 1839 was established still further in 1844, was guaranteed still more effectually in the Minutes of the Committee of Privy Council on Education in 1846, which had worked so important a charge in our educational machinery; and it was still further ratified within the last two years—that there was to be religious education in England. The writer of the article in the *Times* said that the function of the Inspector of Schools was to see that too much religious education was not given and that enough of secular education was given. The distinction was false and impracticable also. If they worked at all they must go hand in hand together: the same master who prayed in the morning for a blessing on the work, the same master who gave a lesson in Scripture and drew from it moral truths, must give the lesson in arithmetic, geography, history, &c., in order that whilst giving that lesson he might always be ready, if he saw the children idle —if he saw any fault amongst them—to appeal to those prayers which he had offered up in the morning, and to tell them that it was a mockery to remind them of the religious precepts therein contained if they did not act upon them; and so in every part of his day's work he might be continually falling back on that religious commencement. (Applause.) Therefore he said if they were to divorce religious from secular education they would deprive each of its most powerful instrument, and the result would be that education would cease to be the training up of the whole child: the school would cease to be what he rejoiced to say it was increasing to be—a temple of industry dedicated to Almighty God, where head, hand and heart were trained up to do Him service.

The Rev. J. H. Sharwood, after some prefatory remarks, said if they had only assembled on this occasion to hear the remarks of the Rev. Mr. Norris, he apprehended that they would have felt perfectly compensated for their attendance. Whatever the *Times* in its wisdom might think fit to usher forth as the particular philosophical views of those who sat in their snug warm chambers and easy arm chairs in Printing House Square, and wrote for so many shillings a line, they (the clergy,) who worked and saw the practical bearing of the great educational movement, felt that there was no danger of those extreme views being carried out. If they would read Shuttleworth's work on education they would see that he there asserted that that man must be little short of a madman who would, in the face of the determination which had been expressed by the people, attempt to separate religious and secular education. Now when they knew that the one was intimately connected with what he wrote about, whereas the other had a certain monetary arrangement with the proprietors of that wonderful journal—the *Times*, they could not feel the slightest fear that the remarks of the *Times* would overbalance the judgment founded on the practical good sense and knowledge of the writer to whom he alluded. Thereore he felt that all they had to do was not to rest on their oars, but to face the dfficulty, and by no means flinch from following out to the utmost possible extent the intellectual progress of the people, whilst as clergymen and laymen who felt the value of education themselves they held a rigid rein over those who taught in their schools, taking care that they were religious men, and then he was by no means unwilling to give full range to the expansion of the human mind with that knowledge which would grow and increase. He believed that there was a great mistake abroad with respect to the clergy—it was believed that they thought a man never could overleap the barriers within which he was born, and therefore that his mind was stunted down and cribbed and trimmed down to what some presumed to call "his station in life." But the British constitution knew nothing of that sort. There were amongst those who adorned their country, and who would illustrate its history, men who had risen from the lowest ranks, and simply by that good, wholesome education which they had received in our schools, and improved in our universities. It was delightful to know that this Association had so much increased. Archdeacon Hone had called him the father of the institution. He hoped it would go on and flourish, and never do discredit to its parent.

BATH DISTRICT CHURCH SCHOOLMASTERS' ASSOCIATION.

Patron: The Right Hon. and Right Rev. the Lord Bishop of Bath and Wells. Vice-patrons. The Ven. Archdeacon of Bath; the Rev. the Incumbents and Licensed Curates of all Parishes, represented by Members of the Association.

In the present age, when so much is being done towards raising the standard of instruction in our public elementary schools, and elevating the teachers to a better position in society, both by setting up a higher standard of qualification, and procuring a better remuneration for their arduous and responsible services, it behoves the teachers themselves to look well that their attainments come up, as nearly as may be, to the requirement of the times. And, as these improvements are not confined merely to the schools which come under the provisions of the Minutes of Council on Education, but act with reflex operation on all elementary schools, more or less, it is felt that one of the best means for securing the progress of the schoolmasters, as a body, in necessary branches of instruction—viz., accurate knowledge of Holy Scripture, the Liturgy, Church and General History, Music, Grammar, Geography, Arithmetic, Algebra, Euclid's Elements, School Management, Method, &c.—is by associating for discussion, mutual counsel, and study. Under these circumstances, the Church Schoolmasters of Bath, and its vicinity, have formed an Association, with the above objects in view, trusting that they will meet with the co-operation and support of the clergy and influential laymen of the city and neighbourhood.

Donations and subscriptions are respectfully solicited for defraying necessary expenses, and towards forming a Library of text books and books of reference bearing on subjects connected with elementary and general education.

Donations and subscriptions, or contributions of suitable books, will be thankfully received by

Wm. Timme, Hon. Sec.

Weymouth House, Bath, July 23, 1853.

Correspondence.

Sir,—Knowing that School Management forms an important part of the Examination for Scholarships and Certificates, I shall feel greatly obliged could you furnish me with a little information on that subject (previous to the coming Examination) in the Papers for the Schoolmaster.

Owing to the confined space then allowed for a time-table, I should be glad to see a specimen for a school with 120 boys, a master, and two pupil-teachers, ; and also, how you would organize such a school. Could you give me the required information previous to the Examination, I shall feel greatly obliged.

AN ASSISTANT MASTER.

[In the matter of Organization and School-management there seems to be a strange want of information, and a stranger lack of independent thought. It would appear that after so much has been written, and so much actually done in the way of improvement, very much remains to be done. We have several times taken up this subject of Organization, and would do so again, could we suppose our doing so would serve the interests of our readers. Our desire is to aid and not to supersede Teachers' efforts. This is a subject not to be *read* up, but one in which the examinee must give the result of his judgment based upon *experience.* To the class seeking this information we would say—trust to your own experiences of school life, rather than to any other sources. Take courage, and think for yourselves—be *guided* by what you see and read, but not *enslaved.* There is no stereotyped plan of organization. Some plans are undoubtedly better than others, but none at present command general approval.]

SIR,—Would you kindly allow me to ask, through the medium of your valuable "Papers," if it is the general rule when the duties of a newly-appointed teacher commence on the termination of the customary holidays of the school to which he is appointed, for the managers to pay the teacher his first quarter's salary minus holidays, or,—as they must do, I presume, if there be no change of teacher's pay, the full quarter.

Doubtless many of your readers will be glad to know if the former be the rule, and if so, in taking new appointments, will endeavour to commence their duties at a time when, for the enjoyment of a few days' liberation from their arduous duties, they will not have to suffer a proportionate deduction from their often scanty and hardly-earned salaries.

W. M. N.

[This point, as it seems to us, is to be decided rather by the terms of the agreement than by usage. From anything here stated, we might assume that the writer entered upon his duties without a clear understanding with the committee, rather than that there was any disposition on the part of the committee to deprive him of a portion of his stipend. Teachers entering into new engagements, should have the terms relating to salary and conditions of service carefully adjusted at first; by so doing, many little bickerings between managers and Teachers would be avoided.]

SIR,—For some time past the leading topic among the friends of Education has been the "Social Condition of the Schoolmaster." Much has been said and written, but I am afraid only very little has been accomplished, so far as relates to pecuniary means. We have only to look over the advertising columns of the Educational Periodicals to find that some of the situations are little better than *starvations.* I will not occupy your valuable space by examples, but humbly suggest a remedy for the disease.

By a recent Minute from the Committee of Council on Education, all schools fulfilling the required conditions are to receive the benefit of the Minute, dated 2nd April, 1853, whether applied for or not. This grant, if properly applied, might be made very beneficial; but according to the existing regulations, I think, the managers and not the schoolmaster, will be benefited. The following example will show this. Suppose the master's salary to be £60, the total income of the school may be stated at £70. A capitation grant of £15 would raise the income to £85; the master is to receive seven-tenths (£85) = £59 10s.

By a Minute from Government, the capitation grant might be applied to raise the salaries of the class of schools mentioned above, to a certain mark. and the surplus applied as the managers might think proper; then the master would be materially benefited, and a very great step taken towards raising the position of the teacher to its proper level.

By the above, or some similar plan, I believe, the greatest evil existing in our schools would be remedied. Teachers would not always be on the *look out* for a better situation; were the salaries of all masters nearly equal, how seldom would there be a change, and what would be the value of such an arrangement to the country at large? Preferment is a system that has unhappily crept into the Church, and, I am sorry to say, it is getting a strong hold in the school. Happy would it be for education, if that word could be rooted out of the vocabulary and memory of every National Schoolmaster.

J. R. B.

SIR,—Would you permit me to ask some of your able correspondents whether they would be so kind as to favour me with a paraphrase of the following lines, and parse the words printed in italics:—

"To whom the *angel*: *Son* of heaven and earth,
Attend; that thou art *happy*, owe to God,
That thou continuest such owe to thyself,
That is, to thy obedience; *therein stand.*
This was that *caution given thee*; be *advised.*
God made thee perfect. not immutable:
And good he made thee; *but* to persevere
He left it in thy power; *ordained* thy will
By nature *free*, not *overruled* by fate
Inextricable, or strict necessity,
Our voluntary service he requires,
Not our necessitated; such with him
Finds no acceptance, nor *can* find."

P. T.

NOTICES OF BOOKS.

My Sunday School Class. The Rev. J. F. Serjeant. Sunday School Union.—The following extract, from the introduction, will fully explain the character of this little volume, and the reasons for its publication. "Now, it is not the intention of this little work to supplant that diligent and careful preparation (of lessons) already noticed. I give it to Sunday-school teachers as an exhibition of the plan of instruction which I have pursued, thinking it may prove a kind of model for some of them to follow in their Sabbath instruction, and, if used merely as such, it need not repress the work of preparation in any of its details. But the assistance of *junior* teachers is the object which I have principally in view. I have often felt that something more is needed than directing young teachers to proceed about their work; you may tell them to explain, to catechise, to illustrate, and to apply; but they want to hear you explain and catechise, to see what kind of illustrations you adopt, and the nature of the applications which you address to a class of children. It may, therefore, be well to furnish the lesson on paper—to give the question, answers, anecdotes, and applications of actual exercises, as far as they can be remembered."

The productions of practical men, especially in the detail of instruction, is always entitled to a respectful attention, and the more so in this case, as the writer has had the advantage of a connexion with the St. Bride's Sunday School, London, under the superintendence of Mr. R. N. Collins, and has moreover been a Diocesan Inspector of Schools. From efforts like these to diffuse examples of instruction, we augur much good, and recommend to all employed in this work, that they seek fully to apprehend, and skillfully apply the principles involved in these model lessons.

Elements of Book Keeping (Gleig's Series.) A K. Isbister, M.R.C.P. Longman and Co.—This manual "differs essentially in its plan from any of the current works on the subject, by taking up the process of instruction at a more elementary stage than is usual in treatises of this description. Instead of placing before the learner a mass of unconnected details, in the form of a set of ready-made books to copy, and analyse as he best can, by the aid of a series of 'rules' and 'directions,' of which he frequently can neither comprehend the meaning nor perceive the object; the construction of the books is postponed until the pupil is so far familiar with the various forms of accounts composing them, as to be capable of framing a set of books for himself." Although of unpretending size and price, there is a pretty full and complete collection of examples in single and double entry. The introductory part is really a valuable feature, and will commend the entire book to the attention of teachers.

Remarks on National Education, and its Present Tendency. David Walker. Groombridge and Son.—This book is evidently the production of a Teacher who has looked beneath the surface of things, but whose strength of mind was not sufficient to preserve him from desponding conclusions. There is moreover an acerbity of tone, and almost general dissatisfaction with all that is, running through the whole, which almost forces the conclusion that the writer is labouring under soreness of mind. This is unfortunate. On such a subject as National Education, and especially when current notions are to be combated, a writer will not be listened to, who carelessly or wantonly consigns entire institutions, and whole classes of acknowledged functionaries, to public contempt as useless, or positively injurious.

From the preface we learn that the book was written under the "conviction that the present system and course of education are productive of many national and social evils." To the support of this proposition, the former part of the book is devoted. The following are some of the conclusions at which the writer arrives: "The National Society and the Committee of Council on Education, with their inefficient staff of Inspectors, go on wasting capital, time, and labour, boasting of the rapid increase of schools, and their wonderful and numerous improvements in elementary education, forgetting that crimes of a serious nature have increased in proportion to the population, in England, *five times*, in Ireland, *six times*, and in Scotland, *forty times*." Again, "That the prevailing characteristics of the age—dissent, democracy, and scepticism—are chiefly the fruits of a careless and reckless system of education."

Mr. Walker's estimate of Teachers and Training Colleges is anything but flattering. "I know of no certificated master possessing a knowledge of the leading causes of human corruption in these densely populated localities (manufacturing towns). What moral advantage can the social state receive from the teaching of raw youths, who, by spending a few years in a national school, where the formation of character is unknown, are expected to give to our sons and daughters such principles as will enable them to surmount the evil influences of society, and execute the duties and responsibilities of life? Or what can be looked for from young men, many from the simplicity of country life, who by attending a training school for a few months, and getting "crammed" with crude literature, pass an examination, conducted by inexperienced gentlemen, obtain a certificate entitling them to an annual remuneration of public money, for putting into execution a system of education that is daily breaking the ties of charity, that have hitherto held the various classes of this country together."

Since the failure of all our educational schemes is so complete, it is patriotic in Mr. Walker to show how an educational revolution may be effected. "Every national system and routine of instruction intended for working people ought to embrace:—

I. The formation of infant character, including religion, temper, habits, and constitution.

II. A facility in reading, writing, and accounts.

III. The elements of the most useful sciences, more particularly mechanics, chemistry, geology, and chemical physiology, in their close relation with practical farming.

IV. A practical knowledge of agricultural and domestic economy, or of some useful manufacture, trade, or occupation. A knowledge of the duties of life in connexion with labour, and how to execute these duties in the best possible manner.

V. Such arrangements and military exercises as would prepare the male population to defend their country and sovereign, and to enable the Government to resist injustice and oppression from any foreign enemy."

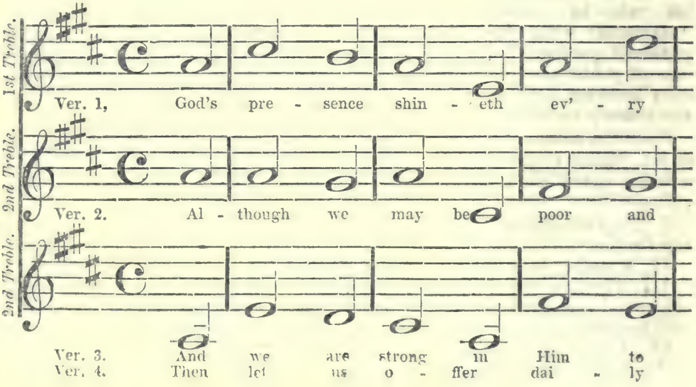
Many of our readers will wonder what the precise point of difference is between this scheme and some already in operation. It appears, however, further on, that self-supporting home colonies are to furnish a basis of operation, and that by the power of some modern Lycurgus, a system of social communism is to be established, and the inhabitants of manufacturing towns drafted off to these joint-stock or government colonies. We admit the necessity for decisive efforts to check the increase of crime, and think the writer has successfully proved this necessity, but we cannot agree with this proposed remedy.

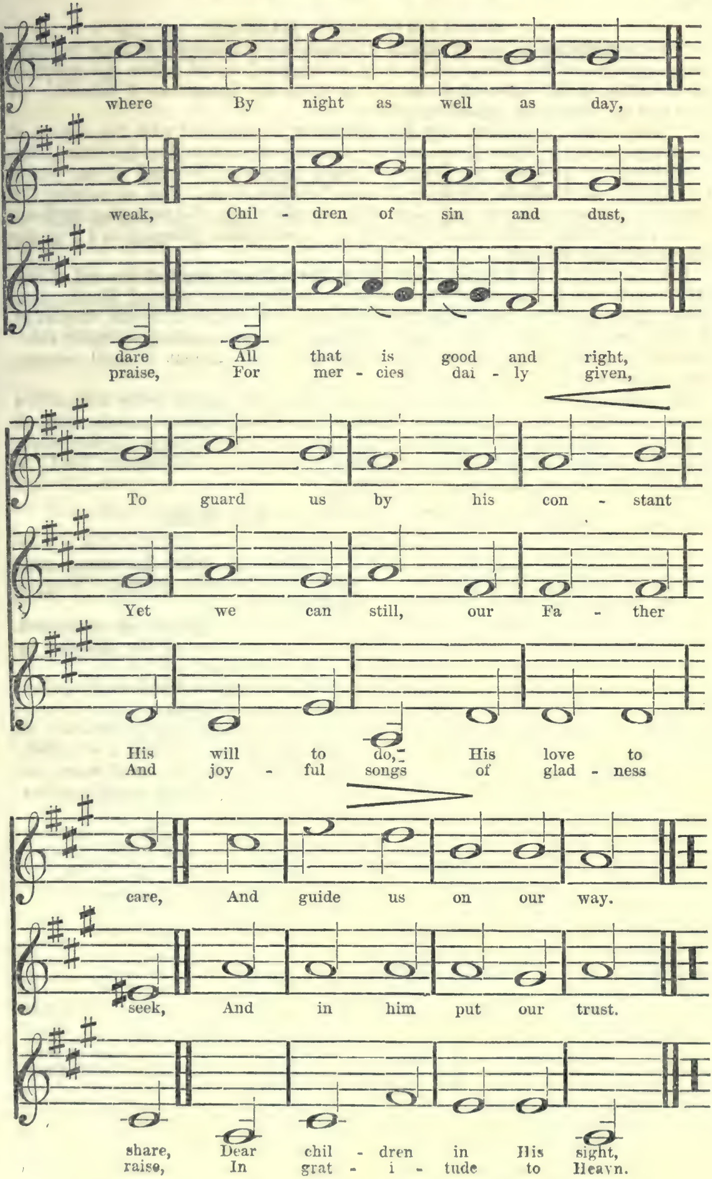
The latter part of the book treats of "system and course of instruction." Here we expected to find something worthy of a master with so large an experience as Mr. Walker's. We were, however disappointed,—the sketch of system is meagre, and the notes of lessons are few, and of the ordinary kind.

Complete System of Arithmetic. James Trotter. Simpkin and Co.—This manual originated in the publisher's resolving to bring out a complete system of Arithmetic in theory and practice, adapted to the present advanced state of science. The theoretical part, though slight, is in advance of the other text-books of this class. In the practical part it is characterized by an entirely *new* set of exercises applicable to the business of real life. The higher parts of arithmetic are fully and successfully treated. Wherever a text-book is required, containing a *new* and extensive series of exercies, Trotter's Arithmetic may be commended.

God's Presence Everywhere.

Poetry by Wm. Martin. *Music by* C. G. Cross.


1st Treble.
Ver. 1, God's pre - sence shin - eth ev' - ry
2nd Treble.
Ver. 2. Al - though we may be poor and
2nd Treble.
Ver. 3. And we are strong in Him to
Ver. 4. Then let us o - ffer dai - ly


where By night as well as day,
weak, Chil - dren of sin and dust,
dare All that is good and right,
praise, For mer - cies dai - ly given,
To guard us by his con - stant
Yet we can still, our Fa - ther
His will to do, His love to
And joy - ful songs of glad - ness
care, And guide us on our way.
seek, And in him put our trust.
share, Dear chil - dren in His sight,
raise, In grat - i - tude to Heav'n.

SUPPLEMENTARY MINUTE.

The Authorities of the Training Colleges have received a reply to their representation of the effects which they anticipated would follow the adoption of the 12th, in the shape of a circular sent to the Inspectors of Schools. It contains the following important extract:—

"With a view to prevent any loss (so far as is consistent with the objects of the Supplementary Minute, and with the considerations stated in this letter,) the Lord President proposes to allow the usual grants at the end of one year's training for all Students, whether Queen's Scholars or not, who, on passing the prescribed examination, are (a) more than 24 years of age, (b) more than 22 years of age, and in the second class of merit; (c) ex-assistants pursuant to § 7 in the Supplementary Minute.

His Lordship will further allow twice the ordinary grant at the end of the third year's training for all students who are in the second class of Merit; provided, however, that the Committee of Council be satisfied by the Report of H. M's. Inspector that the course of training in the given college is fairly commensurate with so long a period, and that the establishment is in all respects equal to impart it.

If, with these modifications, the Minute should still appear to the authorities of any college under inspection, to be such as they cannot accept without pecuniary loss, the Lord President will allow any such College (notice being given of the wish of the Managers to that effect before 1st January 1854) to abide by the Minute of 25th, July, 1850."

QUESTIONS FOR PUPIL-TEACHERS.

MALES (5TH YEAR).

1. Write out an essay on the best method of teaching Arithmetic, Geography, or Grammar.

2. Parse fully the words in italics in the following passage, and paraphrase it:—

"*Imagine* from their deep foundation *torn*
The most gigantic sons of earth, the broad
And towering Alps, *all tost* into the sea;
And *light* as dawn, and volatile as air,
Their bulks enormous *dancing* in the waves
In time and measure *exquisite*."

3. Name the chief English metres with examples.

4. Write out a short History of England during the 15th or 16th centuries: the names of monarchs—habits of the people, &c.

5. Draw a map of the two hemispheres, with chief divisions, rivers, mountains.

6. Give an account of Confirmation, with Scripture proofs, &c.

7. Name in order the minor prophets, and give some account of Haggai or Malachi.

8. Name the epistles in order, and give some account of the Epistles to the Thessalonians.

9. Write out the Article on Baptism and the Lord's Supper.

10. If a man exert a pressure of 65lbs. upon the handle of a windlass, what weight will he raise, when the handle is 2ft. in length, and the radius of the axle 3in.

Multiply $\frac{3a}{5}$ by $\frac{a}{4}$ and $\frac{2x}{3}$ by $\frac{2y}{6}$.

Solve the following equations:

$$\sqrt{x}-1=\sqrt{x-9}$$

$$\sqrt{x}+\sqrt{x-3}=3$$

Euclid III. 9. and IV. 3.

11. T and H dig a trench 372 yards in length, working towards each other: T digs 20 yards per day, and H digs 36 yards per day: when will they finish it?

12. Make a drawing of some object in the room.

PAPERS FOR THE SCHOOLMASTER.

No. 35. JANUARY 1, 1853.

Compulsory Education.

The grand argument for a more efficient scheme of education is borrowed from our prison statistics. The fact is beyond dispute, that ignorance and crime go together; but the future fact that crime springs from ignorance, has been assumed and never proved. The conclusion may have been too suddenly arrived at, that ignorance is not so much the *promoter* as the *companion* of crime, both being the natural conditions of a sunken class of our fellow-subjects. Criminals are criminals, not because they are ignorant, but both criminal and ignorant—because they are uncared for. The existing system, worked under the Minutes of Council, fails in laying hold of this class. It can only help those who can help themselves, and leaves the regions of St. Giles's, and the multitudinous alleys and byeways of our manufacturing towns untouched. It does infinitely more in arresting the downward progress of the *sinking*, than in elevating the *sunken* classes, while it is the latter which supply our criminal population.

But how do our new schemes propose to supplement the present system now at work? They propose to raise more ample funds by rates, and to afford a free education. But past experience has shewn that whether the weekly payment were *one* or *four* pence, it has been freely given by some; the fact remaining unaltered, that the sunken and crime-generating class care nothing for education, not even when it has been offered to them *gratuitously*. The Lancashire rate-schemes will, indeed, erect school-houses where the present scheme fails to erect them; but unless the education be *compulsory*, as well as *free*, no impression will be made upon the idle, the pauper, and the criminal. What is needed in framing any new scheme which professes to supply the defects of the existing one, is to provide for that which the latter is found to overlook. The more zealously the present scheme is administered and developed, the more will it bless by arresting the *sinking* class; but the problem for which all new social schemes afford no solution, is this—how shall we bring the humanising influences of education to bear upon the *sunken* and careless class? Nothing short of compulsion of some kind will avail. This compulsion need not be physical. The sunken class are wholly or partly dependent upon the poor-rates. These rates are expended upon out-door as well as in-door paupers. Education is already made compulsory upon the in-door pauper children, why should not bread be refused to *all* who do not attend the same school with them? Where is the difference of principle between the compulsory education of the pauper and the semi-pauper? Here then is the basis of a scheme which is so simple that it may excite a wonder that it has never been acted upon

(1). Every district of — inhabitants shall have a separate school, supported by a distinct rate.

(2). Such district school shall be controlled by a District board of guardians, called the "Juvenile Board."

(3). No family shall receive *partial* or whole support from the rate which does not send the children to the school.

(4). Every such school shall be *industrial* in its character—the object being to infuse the spirit of work, and to inculcate habits of providence, as well as to instruct in useful knowledge, religious and secular.

(5). Such schools shall be supplied with masters, educated for the special work, at institutions similar to Knellar Hall.

(4). Every school shall be separated from the pauperising atmosphere of the adult workhouse.

No jealousies or religious prejudices will be aroused. We have the machinery already at work. It only needs re-adjusting and expanding. This is the class that really needs to be newly legislated for, and it is fortunate that men of all denominations are more self-interested in the material and moral improvement of this class, than in proselytising. It is the class immediately above this that are more worth disputing for, and until educationists shall reconcile all parties to a common scheme, let us rejoice that the existing system, worked under the Committee of Council, is giving assistance with equal hand, to all religious sections, and an impulse to the education of a large and struggling class above the pauper and the sunken—one, however, which, if neglected, rapidly supplies the rank of the latter, which expatriation and imprisonment, at an enormous cost, hopelessly endeavours to thin.

The Mission of the School.

Education, is we trust, being gradually more and more estimated at its proper value. It is, we believe, becoming increasingly appreciated as a mighty influence either for good or evil, as a something which bears upon the present and future "inner-life" of its subjects, and not as the mere imparting of a few external and almost mechanical acquirements. The Teacher, in days now happily passing away, was too often an individual led to the selection of his occupation by his very incapacity for any other employment. We little doubt but that instances can be called to mind by many of our readers in which some adverse change of circumstances, or some bodily infirmity, or some similar reason, has induced one or more individuals, within their knowledge, to have recourse to the expedient of "opening a little school." While we may pity the individual, we cannot regret that his "occupation," has "gone." We cannot weigh their few and isolated interests, against the claims of a neglected population. We may admire, and pay all honour to the energy, which prompts to an endeavour for self-support, but a feeling of a deeper responsibility, compels us to leave that energy to seek another channel. The best interests of the many, cannot any longer remain subservient to the necessities of the few. We may regret the fate of those, whom the onward and rapid march of Education has compelled to fall out of the ranks, but we cannot, for their sakes, stop the advance, or retrace our progress. It is true that our present system and its requirements, may have deprived some of a source of income; but, as well might we ignore the improvement of machinery, or the motive force of steam, from a knowledge of the temporary distress, which almost always attends any new, although for the future, beneficial, application of its powers. After all, we doubt whether the Teachers, whom a change of feeling and action has ejected from their position, have any real right to complain, as if they had possessed a vested interest in the science of education. Teaching was to them merely an occupation, and not a vocation, one which they would have gladly exchanged for another, more suitable and remunerative; its final end, was to obtain a livelihood, but the end of our present, and as yet undeveloped, Educational Movement, is to train the people. They have not been supplanted and superseded, by a movement which has sought only to introduce into their place a similar class with similar objects, but have yielded to an impulse directed toward an aim which they never even "dreamt of." A livelihood may be obtained by other means than school-keeping, and, when it simply forms the object, we may be allowed to treat the method as a matter of indifference. It is ever to be remembered by the Teacher that, although Education may supply the means of subsistence, it has also an aim to be followed for its own sake, independently of its contingent circumstances; one not to be valued only by its results, in so much per annum. The new class of Teachers, who have already to a great extent, and mnst in process of time, entirely supplant the old body, need to be reminded, that they have been sedulously trained to take wider views of the importance of their position. They have been supplied with well-considered methods for carrying out their purposes, and need being warned against falling into the same mercenary views of their office, which too often characterised those whom they have "pushed off their stool." We would impress upon the Teacher that his work partakes much of the character of a "Mission," and that a "Home Mission," that much of his work will admit of no pecuniary valuation, but must remain unpaid, save by an approving conscience, and the inward satisfaction of an earnest spirit. Would the Teacher but regard, and enter upon his work in this light, although he might not by it immediately improve his position as an individual, he would feel a reward peculiarly his own, and could not fail to have exerted a beneficial influence, eventually, over the interest of his class. We will not dwell at present upon the many difficulties which beset his path, either in making felt the value of education, or in retaining his children under its influence, in opposition to the present money-getting spirit, of which they are too often the victims. We will look rather upon the work of the Teacher as the diffusion of a subtle influence, which is to make itself felt far beyond the walls of the school-room. Such as is the Teacher, such will be the scholars. We have said that the Teacher's work partakes of the religious element, which reminds us of a quaint old saying, which gives a high rank to "cleanliness"; and it is not to be forgotten that the school may often have a happy effect upon the physical and sanitary condition of its neighbours. The modes of neatness and cleanliness, which the school-room should present, together with the strict requirement of the same qualities in its inmates personally, as an example of some force for the present, and may be reasonably expected to be developed and reproduced in the future, in many a well-ordered home. In the formatio n of habits of even this description, bearing upon the physical comfort, and not indirectly upon the morals, of future life, the school has at least one "mission." *It has also an intellectual, and yet practical, mission,* one too often misunderstood, while it is imagined that the administering a due dose of reading, writing, and arithmetic, with a smattering of one or two other subjects, has complied with every demand which can reasonably be made upon the teacher. As it is an impossibility to impart, in the limited school-period, all the information which would be desirable, it must rather be employed in teaching the mode of acquiring knowledge, in carefully training and exercising the mind for the future employment of its powers, by the thorough mastery of at least one subject, which might advisably be one congenial to the natural bent of the learner. It is but a poor success, to drill into the certainty of being an indifferent bookkeeper, a scholar whose peculiar predispositions might have rendered him an expert draughtsman. Education should foster natural talent, and not "give a sleeping draught in the morning of life." Much has yet to be done toward cultivating a national taste, toward raising the standard of the people's pleasures and all this offers a wide field and scope to the Teacher. Let him look upon himself as something more than a "teaching-machine." If the education, which he has to impart, must necessarily have a bearing upon labour, let it nevertheless have a higher aim than merely to enable the workmen to indite the items of his bill, to sum them up correctly, and sign his name to a receipt. Let his object be to educate a "craftsman" who has been taught to form correct perceptions of an ideal excellence in the product of his labour; to recultivate that perception of true art, which the remaining evidence of their handy work shews to have been possessed by the artizans of bye-gone centuries, But the misssion of the school ends not here. *It is one, further, of a moral and religious character.* The mere mechanical appliances and acquirements of education, may, in themselves, be possibly dangerous acquisitions, both to their possessor and his neighbours. The knowledge of correct principles of art, is no compensation for the lack of correct principles of conduct. Let the Teacher ever remember, that his mission must have a higher and a holier aim. If his own object is single, and his teaching but the reflection of himself, then will he be teaching his scholars each to, "painfully and diligently, serve God" in their future vocations and callings. Let him look on his work, as not solely bearing upon the advancement of a nation's knowledge, but as an influence on a nation's life, as the furtherence of that which exalteth a nation, and as antagonistic to the sin which "is a reproach to any people." To the Teacher is entrusted the training of the future citizens and mothers of England, no small responsibility. He is laying the "seed-corn of a harvest, or the powder-train of a mine:" let him look to it, that it is the former. The circumstances by which he is surrounded, or the measure of his own capabilities, may circumscribe and modify the secular education which he may be able to impart, the higher object of his mission will always be within his reach. Let him then regard his work as a mission, and that no mean one, the extent of his influence on the future may be incalculable and the future itself immeasurable. His present duty is forcibly contained in the injunction to provide chiefly, that the children committed to his care, "be virtuously brought up, to lead a Godly and a Christian life." M. U. R

Notes of Lessons.

CLIMATE, NO. III.

The third cause of difference in climate is, *Position in respect to large tracts of land and water.* In our first lesson we learnt that the particles of which the earth's surface is composed are bad conductors of heat—and bad conductors usually absorb heat rapidly, land therefore quickly absorbs the heat which falls upon it, but does not allow it to pass through its substance, therefore the Solar heat which strikes upon it accumulates at the surface. In *summer* then a place in the interior of a continent will have a much higher temperature, than one situated in a similar latitude but near a large body of water. In winter the earth will part with its heat rapidly by *radiation*, and owing to its low conducting power no fresh heat will be supplied from the interior, neither will the sun have much power, because his rays strike the earth obliquely, therefore it will soon be reduced to a low temperature, hence places situated in the interior of a continent will be much colder in winter than places having an *insular* position.

Examples. – Edinburgh and Moscow are nearly on a parallel 55°, N lat. yet the average summer temperature of the former is 57.1° and at Moscow, 64°. Where as the average winter temperature of Edinburgh is 48.5° of Moscow, 15°.

When heat is imparted to water what becomes of some part of the water? It is *evaporated.*

This *vapour* ascends into the air and carries with it a large portion of the heat which strikes upon the surface, it is one of the properties of heat to *equalize* itself, thus. it is diffused through the air, along with the vapour which modifies the effect of heat very much; so that in summer a place having an insular position will not be subject to so high a temperature as one having a continental position.

The surface water, on being cooled, *contracts* and becomes heavier. What will become of this water which has thus become heavier than the rest? It will descend, and warmer water from below will take its place. These currents of ascending and descending water go on till the whole body reaches the temperature of 39°. So that until then the whole body of water is a magazine of heat, which supplies the surface. This of necessity tempers the climate of places situated near to large bodies of water, and considerably raises their *winter* temperature.

IV. *The aspect* or slope of a country *i.e.*, the way in which it lies toward the sun, has a great influence on climate. In choosing land for a garden which way should we wish it to slope? To the south. Why so? Because the sun's rays would fall on it less slantingly than if it had a northern aspect.

V. *The direction and height* of the principal mountain ranges. On a cold windy day, whether would it be warmest, in the middle of a field or near the wall? Near the wall. Why? Because the wall would afford a shelter from the wind. So mountain ranges afford shelter from particular winds.

The extreme cold of the northern part of Asia is owing to its being without shelter from the Arctic winds, and partly to its northern slope. The mild climate of the South of Europe is owing in great measure to its being sheltered by the Alps from northern winds. The northern and southern sides of the Alps afford an illustration of this, both in their climate and vegetation.

VI. *The direction of the prevalent winds.* Draw from the children the effect that different winds have on the climate of our own country. The westerly winds bring rain, because they sweep across the Atlantic, &c.

VII. *The nature of the soil, and state of cultivation.* Some soils retain moisture, others allow it to pass through them; they also vary in their power of absorbing and radiating heat. (Illustrate by means of clay and sand.) Countries near sandy deserts will experience heat. Again, places situated near to uncultivated tracts of land will experience cold. The drainage and situation of a country, with regard to large forests, also has an influence on climate. (The large forests and prairies of America.)

Educational Intelligence.

CLASS LIST

Of Teachers in schools connected with the Established Church of Scotland, and Students in the General Assembly's Normal Schools, examined in the month of June, 1853, at Edinburgh, before David Middleton, Esq., Her Majesty's Assistant Inspector; and at Glasgow, before Edward Woodford, Esq., LL.D., Her Majesty's Inspector. Also of Masters of schools, examined in the month of September, 1853, at Inverness, before Dr. Woodford.

1st June, 1853.

I. Masters.

First Class.—*Third Div.* Trotter, James Jeffreys, St. Andrew's Fisher's School.

Second Class.—*First Div.* Walker, David Samuel, West Calder Parish School. *Second Div.* Jarvie, Peter. Crosshill (Ballieston) Branch Parish School. *Third Div.* Hunter, James, Bothwell Parish School (Hamilton); Taylor, John, Bowmore, Kilarrow, Parish School; Thomson, James, New Gilston (Largo); Veitch, Stephen, Balerno, Subscription School.

Third Class.—*First Div.* Stormouth, James, Edinburgh, Cannongate Burgh School. *Second Div.* Cuthbertson, James, Crosshouse School (Kilmarnock); Davidson, Adam, Blacklunnans (Blairgowrie.) *Third Div.* Lumsden, Frederick Roome, Edinburgh, St. George's Local School; Noble, Robert, Newbattle Colliery School (Dalkeith); Walker, Robert, Alexandria Parish School (Dumbarton.)

II. Mistresses.

Second Class.—*Third Div.* Dicke, Mary Anne, Newbattle Colliery School (Dalkeith); Jobson. Rachael Scott, Stob Hill School (Gore Bridge); Shaw, Mary Agnes, St. Andrew's Infant School.

Third Class.—*First Div.* Annand, Mary, Aberdour Female Industrial School; Ormiston, Mary, Glasgow General Assembly's Normal School; Roy, Mary, Musselburgh Ladies School; Sinton, Anne, Berwick-on-Tweed

Infant British School; Thomson, Isabella, Annan Infant and Industrial School; *Third Div.* Ferguson Margaret, Aberdeen South Parish Female School; McGregor, Janet, Leeds, Little Holbeck, Messrs. Marshall's School.

III. Male Students in the General Assembly's Training School at Edinburyh.

FIRST CLASS.—*Second Div.* Mackay, Andrew Scott.

SECOND CLASS.—*First Div.* Paterson, Wanchope; Ramsay, Alexander. *Second Div.* Livingston, Colin; Turner, Neil Stewart. *Third Div.* Campbell, Donald Mc. Donald.

THIRD CLASS.—*First Div.* Christie, Robert; Crocket, George; Mackay, Alexander; Milne, James; Watt, Andrew. *Second Div.* Copland, Matthew Johnstone; Sutherland, William. *Third Div.* Hall, Alexander; Innes, Robert; Robert Robson; Scott, William.

IV. Male Students in the General Assembly's Training School, at Glasgow.

FIRST CLASS.—*Second Div.* Dixon, Edward Maxwell.

SECOND CLASS.—*First Div.* Hay, John; Herr, Alexander; Munn, David. *Third Div.* Blacklock, Robert; Brounlie, Alexander; Easton, Andrew Currie; Little, John; Mc. Clune, Thomas.

THIRD CLASS.—*First Div.* Mc. Dougal, James; Mc. Farlane, Peter; Scott, David. *Second Div.* Allan, James; Dunlop, Archibald; Wason, Charles. *Third Div.* Little, Robert; Mc. Clure, James; Maccoll, Duncan.

V. Female Students in the General Assembly's Training School, at Edinburgh.

FIRST CLASS.—None.

SECOND CLASS.—*Second Div.* Livingstone, Jane Jemima Stewart, Reid, Jane.

THIRD CLASS.—*First Div.* G'ass, Margaret. *Second Div.* Grant, Margaret.

VI. Female Students in the General Assembly's Training School, at Glasgow.

FIRST CLASS.—None.

SECOND CLASS.—*Second Div.* Agnew, Anne Harriet; Auld, Annie. *Third Div.* Watson, Isabella.

THIRD CLASS.—*First Div.* Anderson, Williamina; Craig, Margaret; Cumming, Mary Ann; Murdoch, Harriet; Ormiston, Jemima. *Third Div.* Biddock, Louisa Maria; Hannay, Mary;

2ND SEPTEMBER, 1853.

INVERNESS.

FIRST CLASS.—*Third Div.* Anderson, Alexander, Bellie Parish School (Forhabers.)

SECOND CLASS.—*Secoud Div.* Pithie, Alexander Drimmie, White's Free School, (Montrose.)

THIRD CLASS.—*First Div.* Somers, Robert; Bogie Parish School (Stirling); Tait, Thomas Herriot, Kirk Yetholm (Kelso.) *Third Div.* Duff, Donald, Meikleour Parish School; Grant, Lewis, Elchies (Craigellachie) Parish School; Purdie, Alexander, Melvich G. A. School (Thurso); Roxburgh, James, Abington, Sir E. Colbrook's School; Whitelaw, Smollett, Avondale Parish School (Hamilton.)

RULES OF THE BRISTOL CHURCH OF ENGLAND SCHOOLMASTERS' AND SCHOOL MISTRESSES' ASSOCIATION

1st. That this Society be called "The Bristol Church of England Schoolmasters' and Schoolmistresses' Association."

2nd. That the objects of this Association be the promotion of cordiality of feeling amongst its members by friendly intercourse; and their mutual improvement by Monthly Meetings; giving of Lessons; Reading of Papers and Discussions on scholastic subjects; Circulation of Educational Periodicals, &c.

3rd. That all persons in charge of schools connected with the Church of England in Bristol and its vicinity be eligible for membership. Candidates to be proposed and seconded by two members at a monthly meeting, and elected by vote of the majority at the next.

4th. That an annual subscription of two shillings and sixpence be required of each member, to be paid half-yearly, in advance; the year to commence on the 1st of October; and the omission of this payment within 3 months after it is due, to exclude from membership.

5th. That a meeting shall be held on the first Saturday in each month, at 3 o'clock p.m. at each member's school in rotation, when a lesson previously appointed shall be given by the individual at whose school the meeting is held, to be afterwards freely criticized by each member; such lesson to commence punctually at half-past three and not exceeding half an hour in length.

6th. The person giving the Lesson shall provide a plain Tea for the members present, to be on the Table at 5 o'clock, and not to occupy more than an hour; after which a paper on an Educational subject previously fixed, and of not more than 20 minutes duration, shall be read by one of the members and generally discussed.

7th. After the appointment of the Chairman each meeting shall be opened by reading a short portion of Scripture, followed by Prayers selected from the Liturgy; and closed by singing the Doxology.

8th. That a Treasurer and Secretary be elected at the General Meeting to conduct the affairs of the Association for the ensuing year.

9th. That an Annual General Meeting be held on tne first Saturday in October, instead of the reading of a Paper, after Tea, when the Treasurer's account shall be audited; a report of the past year's proceedings read; officers appointed; subjects for the Lessons and Papers chosen and allotted for the current year; together with the Transaction of all the other General business of the Association.

10th. That every member not present within five minutes of the time fixed for meeting shall pay a fine of one penny to the General Fund, and threepence if not present at all, except in the case of sickness when a written notice shall be forwarded to the Secretary and read to the meeting.

MR. ULLATHORNE, *Hon. Sec.*
ST. GEORGE'S SCHOOLS, Brandon Hill.

DERBY AND DERBYSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The Second General Meeting of this Association was held in the Curzon-street School-room, Derby, on Saturday, the 3rd inst, the Rev. Prebendary Latham, B.D., in the Chair.

The subject discussed was, "The best methods of giving Religious Instruction to children, and the points which were chiefly dwelt upon were, the manner of giving Religious Instruction,—the time best suited for giving it,—and, by whom it should be given.

In the course of the discussion, many valuable hints were given and received by the Masters present, and we trust that good results will be experienced from the consideration of this important subject, not only by the Teachers themselves, but also by the children of their respective schools.

After the discussion, the Masters dined together in the school-room, and afterwards, an excellent Lecture on "Numeration and Notation" was given by Mr. Bland, which concluded the business of the day.

GEORGE TURNER,
Hon. Corres. Sec.

Correspondence.

SIR,—Being convinced of the great importance of Dictation Lessons, when properly given, notwithstanding all that has been said against them, and having given the subject considerable attention, as well as believing that many masters would be glad of some simple and effectual method of giving them, I beg to offer a few remarks and suggestions, which, if you can find room for them in your valuable paper, will, I have no doubt, prove acceptable to many.

In offering these remarks, it will be necessary to bear in mind that Dictation has two distinct uses. One use of it is to *test* the knowledge of a class in spelling: the other, and the most important, is, to *teach* the class to spell. Of course it will be allowed by all that the second is the one with which *teachers* have chiefly to deal; and to which my remarks and suggestions will be confined.

Dictation admits of a combination of purposes; and this circumstance should engage the attention of teachers; not, however, without giving due weight to the main purpose—*teaching to spell.*

With respect to the advantages arising from *a proper use* of Dictation Lessons, I think there can be but little doubt; and that it fully compensates for the time and labour expended in giving it, I think there can be no more. The time allowed will, of course, vary according to the proficiency or otherwise of the classes. I think, however, as a general rule, three quarters of an hour should be allowed for a dictation lesson. One lesson well done is better than ten badly done. No fear need be entertained that the time will be wasted, provided the lesson be given in a proper manner. The *frequency*, too, of these lessons, will, of course, depend entirely on their proficiency, or otherwise, in this subject, and on the general character of the school. This, every master must determine for himself.

The method I recommend will be found both simple and effectual; and I am so thoroughly convinced of its efficacy that I shall not easily be persuaded to cast it aside.

It is as follows:—I first read the whole passage slowly through, endeavouring to make the children understand the most difficult parts, and taking care never to give out more than be properly corrected. I then cause the most difficult words to be spelt correctly round the class. After that, I dictate the allotted portion slowly and distinctly; and when they have all written it, I call out—"change slates," and each delivers his slate to his neighbour. I then proceed to spell each word distinctly—the children at the same time narrowly watching the slates of their neighbours which they hold in their hands, and drawing a dash through the wrong words. When this is done, I call out—"return slates," and each returns the slate to the one who wrote it. Standing with the black-board fronting the class, I then request the children in rotation to name the words they may have wrong on their slates, at the same time writing them myself plainly and quickly on the board: of course, not writing the same word twice, although more than one in the class may have it wrong. By this means all the wrong words in the class are collected in a very short time, and presented to them corrected on the board. They then speedily copy them on their slates, and commit them to memory. Those who are the best spellers will of course say it first; and if there are a few minutes for them to wait for the others, their time may be profitably employed on their slates in a variety of ways. Experience will teach what time will be necessary for each division of this method.

Let not any one who may feel inclined to give it a trial be discouraged by any little difficulties which may present themselves at the commencement; for, by persevering in the method explained above, they will soon find that it is an easy, interesting, and a very profitable lesson.

W. S.

SIR,—Could you be so kind as to recommend to me (through the medium of your "Papers") a *Tract on the Value of Education*, written in familiar language, and otherwise suitable for distribution among the parents of children attending a parochial school. Also a *Set of Rules* for a parochial school.

The parish for which the above are wanted is strictly agricultural, and the poorer children are at an early age employed in field-labour.

It is a mixed school, and includes children of the farmer, as well as those of the artisan and labourer.

A. C. K.

[Perhaps some of our correspondents are in circumstances to supply from their experience this information.]

SIR,—In "Papers for the Schoolmaster," Vol. I, page 194, there is a Routine given, and for the three last half hours in the morning the master is to take each section in order, beginning at the lowest.

I should be much obliged if any of your correspondents would favour me with a course of lessons suited for each section. J. R.

SIR,—Will one of your correspondents be so kind as to inform me, through the medium of your valuable periodical, of the best method of teaching the alphabet, and monosyllables to mixed classes of children, their respective ages being between three and seven years.

G. M.

NOTICES OF BOOKS

Selection of Hymns and Poetry, for the use of Infant and Juvenile Schools, and Families. Groombridge and Son.—A large collection of suitable pieces for children, prepared by the request of the Committee of the Home and Colonial School Society. Though chiefly selected from those writers, whose works have been long and deservedly popular, there are besides, many original pieces. The selection was made with the clearly defined purpose of bringing together a full, yet choice, collection of verse, which should be of a character, fitted to cultivate in young people the kindly affections, or lead to a taste for the beauties of nature. The best evidence of its favourable reception, is the fact, that it has reached its "Fifth Edition." Those of our readers who rightly estimate the power of verse, in fastening truth in the minds of children, will be glad to make acquaintance with this "Selection."

The Pupil-Teachers Guide to a more Intellectual Method of Teaching Arithmetic By W. Bellamy. Jarrold and Sons, London.—We have here a singular book on "Simple Arithmetic," containing *notes* to the amount of about three-fourths of the entire contents. The author proposes by these notes "to render elementary, Arithmetic, not only attractive to beginners, but also to secure intellectual vigour and activity on the part of the teacher." The notes, which are the main feature of this manual, "embrace readings in Biblical Literature; the Liturgy, Calendar, and Antiquities; Physical Science, including Chemistry and Astronomy; Ecclesiastical and Civil History, ancient and modern; with Biography and Geography; also notices of Manufactures, Inventions, and general Literature." When we know that in all good schools, Simple Arithmetic is mastered in the lower classes, we really cannot see in what way the "readings" given can be employed to any advantage, with children of that grade. The notes are most of them very carefully compiled, and form altogether a valuable collection of miscellaneous information, though the connexion between much of it, and simple arithmetic appears rather remote.

The Sunday School Class Register and Diary, 1854. *Sunday School Teachers' Class Register*, 1854. *Sunday School Union.*—One of the advantages of Central Societies, lies in the carefulness with which the apparatus necessary for their agents is prepared, and the low rate at which they can afford to supply it. In proportion as the Sunday school system approaches perfection, and its agents become intelligent and methodical, so will the importance attached to correct records, increase. Both of these Registers are well fitted to serve the purpose of correct registration, besides containing lists of Lessons, Calendar, and other information necessary for a Teacher to have at hand. The former is the more complete, as it contains in addition, a ruled diary for the Sundays throughout the year. No Sunday School Teacher should be without a Register of this kind.

Questions in Arithmetic. By W. Thrower. Simpkin and Co. The author of these questions is the arithmetical master of the Free Grammar School of Edward the Sixth, Birmingham. The character of this manual is indicated by the title; no principles are given, no explanations offered, but the entire book consists of questions, which are carefully constructed, judiciously arranged, and almost inexhaustible in number. Notwithstanding the great objection many Teachers have to a Manual of Arithmetic without answers to the questions, this has nevertheless reached the "Eighth Edition," and may therefore be considered as an established school-book.

The New Year's Voice to Sunday School Teachers. Rev. P. B. Power. A New Year's Address to the Young. Rev. W. M. Whittemore. A New Year's Address to the Parents of Sunday Scholars. Rev. C. H. Bateman. Sunday School Union.—The titles of these Tracts sufficiently indicate their contents; they are carefully prepared, and well adapted for distribution at this season. As they are sold at a low rate per hundred, we trust their circulation will be extensive.

Notes on Scripture Lessons, 1853. *Sunday School Union.*—For Teachers of elementary schools, in preparing their notes of Bible Lessons, we do not know where they could find so large and valuable a collection of expository matter, and practical applications, at so small a cost. Even where Teachers have the advantage of commentaries, they will yet find in the arrangement and hints, more than enough to repay the trifling cost of these "Notes."

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1853 *(MALES).*

CATECHISM, LITURGY, AND CHURCH HISTORY.

Three Hours allowed for this Paper.

Division I.

Excellence in these answers, if combined with high practical ability, will suffice for the highest class of Certificates.

Section I.—1. Explain the two first petitions of the Lord's Prayer, and prove your explanation by parallel passages from Scripture.

2. Give scripture proofs of the answer to the following question in the catechism—"Dost thou not think that thou art bound to believe, and to do, as they have promised for thee?"

3. In what answers in the Catechism are the "Obligations" of Baptism stated? What passages show the Christian's need of Divine Grace to enable him to fulfil those obligations?

Section II.—1. Write the four first sentences in the General Confession; and the third Collect, for Grace, at Morning Prayer.

2. "In all time of our tribulation; in all time of our wealth; &c., Good Lord deliver us." Show from scripture the Spiritual dangers of *tribulation* and of *wealth* respectively.

3. What blessings do we implore in the Litany upon all Christ's people with reference to the hearing of the word? What scripture authority have we for this prayer?

Section III.—1. What evidence is there in the New Testament that the Apostles and first Christians met on the first day of the week for public worship?

2. What festivals has the Church appointed more immediately connected with the history of our blessed Lord? To what events do they severally refer?

Section IV.—Write out one of the following "Articles of Religion," and prove it from Scripture:—

1. Of the Holy Ghost.
2. Of Works of Supererogation.
3. Of a Christian Man's Oath.

Division II.

Candidates may select one or more questions from this Section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

1. Give some account of the Writers of the early Church.

2. Give some account of the most remarkable Heresies of the early Church.

3. What principal events in the history of the Church occurred in the fourth century? What Fathers lived in that century?

4. Give an account of St. Jerome, St. Gregory Nanzianzen, or St. Chrysostom.

5. How were the Popes elected from the fourth to the eleventh centuries? In what century, and under what circumstances, did they become temporal princes? How was the College of Cardinals at first composed? Give some account of Pope Gregory VII.

6. What is known of the early English Church? Give some account of St. Germanus and St. Columba.

7. Give some account of the history of the Book of Common Prayer, and of the Thirty-nine Articles of Religion.

SCRIPTURAL KNOWLEDGE.

Three hours allowed for this paper.

Division I.

Section I.—1. State, shortly, what is recorded in Scripture of Jacob.

2. What were the principal events in the life of Hezekiah?

3. Give some account of the history of the Jews between the period when the narrative of the Old Testament ends, and that of the New, begins.

Section II.—1. What practical instruction adapted to children would you found on the parable of the prodigal son?

2. On what occasion is our Lord recorded to have appeared to his disciples after his resurrection?

3. Describe, as recorded by the different Evangelists, our Lord's trial before Pilate.

Section III.—1. What is recorded in Scripture of St. Mark? At what time, and under what circumstances is his Gospel supposed to have been written?

2. Describe our Lord's Transfiguration; and the healing of the daughter of Jairus, as recorded by St. Mark.

3. Explain the following passages:—

> "And whosoever shall offend one of these little ones that believe in me, it were better for him that a millstone were hanged about his neck, and he were cast into the sea." (Mark ix. 42.)
>
> "This poor widow hath cast more in, than all they which have cast into the treasury." (Mark xii. 43.)

"Whosoever will come after me, let him deny himself, and take up his cross, and follow me. For whosoever will save his life shall lose it; but whosoever shall lose his life for my sake and the gospel's, the same shall save it." (Mark viii. 34, 35.)

Section IV.—1. What occurred during the last visit of St. Paul to Jerusalem.

2. What is recorded in Scripture of Silas, Titus and Timothy?

3. Give some account of St. Paul's residence at Ephesus on his third ourney.

DIVISION II.

1. What historical facts are recorded by Isaiah?

2. Quote prophecies illustrative of the Offices of the Messiah.

3. Illustrate, from the Old Testament, the meaning of the following expressions used in the New:—"The Kingdom of Heaven." "The Gospel." "The New Testament." "The Christ."

4. What ground is there for believing that many facts are recorded in the Gospel of St. Mark, on the authority of St. Peter? Many things honourable to St. Peter are omitted from St. Mark's Gospel. Give examples of this, and account for it.

5. Show, from internal evidence, that St. Mark's Gospel was intended to be read by persons not conversant with Jewish Customs. What facts recorded by St. Mark are not recorded by any other Evangelist?

6. What events in the history of St. Paul are recorded in the Epistles and not in the Acts?

7. Give a sho.t analysis of the first Epistle to the Corinthians.

8. Explain the following passages:—

"The woman was a Greek, a Syro-Phenician by nation." (Mark vii. 26.)

"He answered and said unto them, When it is evening, ye say, it will be fair weather; for the sky is red: And in the morning, it will be foul weather to-day; for the sky is red and lowering. O ye hypocrites! ye can discern the face of the sky: but can ye not discern the signs of the times?" (Matt. xvi. 2, 3.)

"Joseph of Arimathea, an honourable counsellor, which also waited for the Kingdom of God." (Mark xv. 43.)

"And he charged them, saying, Take heed, beware of the leaven of the Pharisees, and of the leaven of Herod." (Mark viii. 15.)

10. Paraphrase the following passage:—

"For if the dead rise not then is Christ not raised; and if Christ be not raised, your faith is vain; ye are yet in your sins. Then they also which are fallen asleep in Christ are perished. If in this life only we have hope in Christ, we are of all men most miserable. But now is Christ risen from the dead, and become the first fruits of them that slept. For since by man came death, by man came also the resurrection of the dead." (1 Cor. xv. 16—21.)

SCHOOL MANAGEMENT.

Three Hours allowed for this Paper.

Section 1.—State how you would *organize* a school if placed under your charge in one of the following cases,—

1. 40 children, under a master, mixed, with no pupil teacher, but with a mistress who attends all day, and can teach reading and sewing.

2. 60 children, mixed, under a master, with a pupil teacher, and a mistress who attends in the afternoon to teach sewing

3. Describe the different plans known to you, of *organizing* a School; and point out some of the characteristic merits and defects of each.

Section II.—Define what you mean by *method*, and give a detailed account of the *method* you propose to adopt in teaching one of the following subjects:—

1. Arithmetic. 3. Reading.
2. Writing.

Section III.—Give the heads of a lesson on some simple subject in one of the following sciences—

1. Natural History 3. Experimental Philosophy.
2. Popular Astronomy.

Section IV.—What expedients would you adopt to cultivate truthfulness in a school?

2. What do you understand by the education of a child? What are the resources placed at the disposal of an elementary teacher, under God's blessing, to accomplish it?

3. What difficulties do you conceive to be peculiar to the state in life of the elementary teacher? How may he best contend with them?

Section V.

Extract from Professor Moseley's Report on Training Schools under Inspection.—Minutes, 1851-2, *p.* 288.

"I have ascertained that the reading lesson-books which are most generally used in the higher classes of Church of England Schools, are the Fourth and Fifth Reading-lesson Books of the Commissioners of National Education in Ireland, and that known as M'Culloch's 'Course;' and I propose, with your Lordship's permission, to set, in the paper on School Management, at Christmas, 1852, one Section of questions from Sections I and IV. of the Fourth Irish Book, and another Section from Sections I. and III. of the Fifth Irish Book, and also two Sections of questions from M'Culloch's Course; leaving to the students the option of the two Irish Books or M'Culloch's, but not allowing them to answer from both." *N.B.—Sections are added from the Fourth Book of the British and Foreign School Society.*

Candidates have the option of answering from the Irish Commissioners' Books, or from M'Culloch's "Course," or from the fourth Daily-lesson Book of the British and Foreign School Society, but no account will be taken of answers from more than one set of books.

Questions from the Fourth Reading Lesson Book of Irish Commissioners.

Section IV.

1. On what causes does the price of labour depend?

2. Give examples of the division of labour, and show the advantages which result from it.

3. What is the use of taxes? Give examples of the state of countries where no taxes are paid. Show that it is just to make every body pay them. What have the taxes to do with the national debt?

Questions from M'Culloch's Course of Reading.

1. Give some account of the growth and manufacture of silk.
2 Give examples of the adaptation of plants to their situations.
3. Give the heads of a lesson on the wonders of civilization.

Questions from the Fourth Book of the British and Foreign School Society.

Give an abstract of one of the following lessons :—

1. The Feudal System.
2. The Common Law of England.
3. The Civil and Statute Law of England.

Section VI.

Questions from the Fifth Reading Lesson Book of Irish Commissioners Sections I and III.

1. Give an abstract of the lesson entitled "The Ocean."

2. Give some account of the different kinds of organic remains, and of the strata in which they are found.

3. Give some account of the structure of the stems of plants.

Questions from M'Culloch's Course of Reading

Give an abstract of one of the lessons entitled as follows :—

1. The mariner's compass.
2. The Life of James Watt.
3. Egyptian antiquities.

Questions from the Fourth Book of the British and Foreign School Society.

Give an abstract of the lesson on one of the following subjects :—

1. The stems and sap of plants.
2. The organs of digestion and respiration in animals.
4. The circulation of the blood.

ARITHMETIC.

Three Hours are allowed for this Paper.

Division I.

Section I.—Work one of the following Sums so that the reasons of each step in the working may appear :—

1. Subtract 2893 from 3254.
2. Multiply 2785 by 502.
3. If 19 things cost £117 what will 62 cost?

N.B. This Sum is to be so worked as to be intelligible to children who have no knowledge of Fractions.

Section II.—1. A bankrupt owes £1,537 3s. 4., but can pay only £960 14s. 7d.; what will be the dividend? How much shall I receive for a debt of £276 11s. 6d?

2. Find, by the rule of Practice, the rent of 311 acres, 2 roods, 26 poles, at £1 2s. 9d. per acre.

3. What principal lent, at simple interest, on the 1st January, at 5½ per cent,, would amount to £1000 on the 29th September of the same year?

Section III.—1. At what price must an article be bought, that being sold for £3 10s. 6d., 13 per cent. profit may be cleared?

2. Reduce 2746 American dollars 30 cents. to British money, exchange being at 4s. 3½d British per dollar.

3. What sum must be put out at 4 per cent. compound interest to amount in 5 years to £1000?

Section IV,—1. At £3 15s. per load (50 cubic feet) what is the price of the timber in a board 12 feet long 9 inches wide and 2½ inches thick?

2. What is the cost of building a wall 50 yards long 7 feet high and 2½ bricks thick, at £4 10s. per statute rod?

3. How many tons of granite, 13½ cubic feet of which weigh one ton, would be required to build a hollow cylindrical tower 150 feet high, whose external diameter is 12 feet, and its internal diameter 9 feet?

BOOK-KEEPING.

Section I.—1. What general rule is there in respect to the entries to be made on the Dr. and on the Cr. sides of an account respectively?

2. How do you distinguish real accounts from others? In keeping these, how many accounts must be opened in the Ledger, and under what headings? Give examples of such accounts. What book do you post from, into the Ledger?

3. What three kinds of accounts are used in Book-keeping? Explain the nature of each of these kinds of accounts. When personal are added to real accounts, what additional accounts are required? In personal accounts, what entries are made on the Dr. and what on the Cr. side respectively?

Division II.

1. Give and prove short rules for multiplying and dividing by 15, 25, 35, 45, 12½; for finding the price of a lb., the price of an oz. being given; for finding the price of one cwt., the price of one lb. being given; for finding the price of 100 articles; for finding the interest *for months* at 6 per cent. or at 3 per cent. per annum.

3. Prove the rule of double position; and find by means of that rule, a number whose half is as much less than 1000 as its double is greater than 999.

4. Explain what is meant by a scale of notation. Express the number 937 in the binary scale, and prove each step of the process.

5. By selling at 10 per cent. profit I can turn my capital twice a year, but by selling at 6½ per cent. profit I can turn it three times a year? which is the best way, and by how much per cent. allowing compound interest, and supposing the capital to be re-invested in the one case every six, and in the other every four months?

ENGLISH GRAMMAR, AND THE HISTORY OF ENGLISH LITERATURE.

Three hours allowed for this paper.

Division I.

Section I.—1. Define an adjective, a pronoun, and an interjection; give the etymologies of these grammatical terms, and examples to illustrate the definitions of them.

2. Give examples of nouns which have two plurals, and of nouns which have no singular. How do you explain the use of the apostrophe in the possessive case? What nouns merely add the apostrophe, without the *s*?

3. How are pronouns divided? Give examples of the different kinds of pronouns. What different parts of speech may be represented by the word that?

Section II.—Define the following terms and give examples of them:—The Subject, the Predicate, the enlarged Subject, and the enlarged Predicate. Under what circumstances does the Predicate require to be completed? Give examples of the completion of the Predicate.

2. Define a principal and a subordinate sentence, and give examples of them.

3. Give an analysis of the following sentence:—

"If it be said, that we should endeavour not so much to remove ignorance, as to make the ignorant religious; religion herself, through her sacred oracles, answers for me, that all effective faith presupposes knowledge and individual conviction.'

Section III.—Paraphrase one of the following sentences; and parse the words printed in italics:—

1. "On the *greatest* and most *useful* of all human *inventions*, the *invention* of alphabetical writing, *Plato did* not *look* with *much* complacency."

2. "*Soft roll* your *incense*, *herbs*, and *fruits*, and flowers,
In mingled clouds to Him, *whose sun exalts*,
Whose breath *perfumes you*, and whose pencil *paints*."

3. "But because our understanding cannot, in this body, found itself but on sensible things, nor arrive so clearly to the knowledge of God and things invisible, as by orderly conning over the visible and inferior creature, the same method is necessarily to be followed in all discreet teaching."

(Milton on Education.)

Section IV.—Paraphrase one of the following passages from Milton's Paradise Lost, and parse (so as to shew their relation to the context) the words printed in italics;—

1.

"He above the rest
In shape and gesture proudly eminent,
Stood like a *tower*: his form had yet not lost
All her original brightness, nor appear'd
Less than archangel *ruin'd*, and *the excess*
Of glory obscured: as when the sun, new risen
Looks through the horizontal misty air
Shorn of his beams; or, *from behind* the moon,
In dim eclipse, disastrous twilight *sheds*
On half the *nations*, and with fear of change
Perplexes monarchs:" (Book i. Line 589.)

2.

"He scarce had ceased, when the superior Fiend
Was moving towards the shore: his ponderous shield,
Ethereal temper, massy, large and round,
Behind him cast; the broad circumference
Hung on his shoulders like the moon, whose orb
Through optick glass the Tuscan Artist views
At evening, from the top of Fesolé,
Or in Valdarno, to descry new lands,
Rivers, or mountains, on *her* spotty globe.
His spear, to equal *which* the tallest pine,
Hewn on Norwegian hills *to be* the mast
Of some great ammiral, *were but* a wand,
He walked with, *to support* uneasy steps
Over the burning marle; not like those steps
On Heaven's *azure*; and the torrid clime
Smote on him *sore* besides, vaulted with fire."

(Book i. Line 283.)

DIVISION II.

Give some account of the life and writings of one of the following authors:—

1. Oliver Goldsmith.
2. Joseph Addison.
3. Alexander Pope.

ALGEBRA.

Four hours allowed for this paper with that on Higher Mathematics.

DIVISION I.

Section I.—1. Add together, $ax - by$, $(x + y)$, and $(a - 1)x - (b + 1)y$.

2. From $2(a + b) - 3(c - d)$ take $a + b - 4(c - d)$.

3. Multiply $a^{(p-1)q} - b^{(q-1)p}$ by $a^q - b^d$.

Section II.—1. Reduce to its simplest form—

$$\frac{3x - 4y}{7} - \frac{2x - y - 1}{3} + \frac{15x - 4}{12}$$

2. Multiply $(-5 - \sqrt{\tfrac{3}{4}})$ by $(-5 + \sqrt{\tfrac{3}{4}})$.

3. Reduce to its simplest form—

$$\frac{2a^2 + ab - b^2}{a^3 + a^2b - a - b}$$ and find the square root of $10\tfrac{1}{2} + 2\sqrt{5}$.

Section III.—Solve one of the following equations—

1. $$x - \frac{3x - 9}{5} = 3 - \frac{2x - 5}{3}.$$

2. $$\frac{x}{x - 2} + \frac{x - 9}{x - 7} = \frac{x + 1}{x - 1} + \frac{x - 8}{x - 6}.$$

3 $$(x - y)(x^2 - y^2) = a.$$
$$(x + y)(x^2 + y^2) = b.$$

Section IV.—Solve one of the following equations—

1. $$a + x + \sqrt{a^2 + x^2} = b.$$

2. $$\sqrt{4a + x} + \sqrt{a + x} = 2\sqrt{x - 2a}.$$

3. A person having bought a horse, sells it again for £144: and thus gains as many pounds per cent. as the horse cost him. How much did the horse cost?

DIVISION II.

1. The joint capital of two partners is £500. One lets his capital remain 5 years and the other 2 years. Each receives for capital and profit £450. What did each invest?

2. A number consists of three digits which are in arithmetical progression. If the sum of the squares of its digits be divided by the sum of its digits the quotient will be $3\tfrac{2}{9}$, and if we subtract 198 from the number, its digits will be inverted. What is this number?

3. Solve the equation $x + a + 3\sqrt[3]{abx} = b$.

4. What will £ P amount to at compound interest in n years at R per cent. per annum; the interest being paid and re-invested *half-yearly?*

5. In a geometrical progression of four terms, the sum of the terms is a and the sum of their squares b. What are the terms?

6. Find a general expression for the present value of an annuity to commence at the end of p years and to continue q years.

[We omit a part of the Masters' Examination Papers for Certificates of Merit, to have room for the Papers set for Candidates for Queen's Scholarships. These Papers, we have no doubt, will be as acceptable to Masters and Mistresses, as to the Pupil-teachers themselves. This style of Paper for Candidates we think to be very judicious, and calculated greatly to improve the course of instruction during the apprenticeship. To those who have the best means of judging, it has appeared most evident, that in a large number of cases, the apprentices have not been judiciously instructed; there has been an eagerness to press them over advanced ground, before the first portions were occupied. The kind of Paper now set, will tend to check that overhaste, and force on those who have charge of these young people, the duty of laying a solid foundation; attending rather to quality than quantity.]

EXAMINATION OF CANDIDATES FOR QUEEN'S SCHOLARSHIPS.

CHRISTMAS, 1853. *(MALE AND FEMALE).*

SCHOOL MANAGEMENT.

Three hours allowed for this paper.

1. What class or classes in your school have you had under your charge as a Pupil-teacher?

What subjects were being learnt in each of those classes?

How many children generally formed a class?

In what shape was the class placed while under your instruction?

Mention any particular advantage or inconvenience which you experienced from that shape. Think of your answer with reference to each of the subjects which you had to teach, such as Reading, Writing, Arithmetic, &c.

2. How many Pupil-teachers were serving at the same time as yourself in the school?

Were you all of the same standing?

How did the teacher to whom you were apprenticed arrange for giving to all of you, out of school hours, the daily instruction which you were to receive in the subjects of examination at the end of each year?

3. Mention (by name) as many as you can of the text books which you used in pursuing your own studies. Did you buy at the full price, or how otherwise did you procure the use of, books and maps for your own studies?

What were the general regulations for the supply of books in your school?

5. Describe the method (step by step) according to which the children in your school were taught *to write.*

6. Mention the several advantages which may be made to follow from the exercise of *writing from dictation.*

What plan do you think is the quickest, the surest, and the most instructive, of correcting exercises so written?

7. Describe the shape and construction of the *black board.*

Explain the use you would make of it in teaching (*a*) arithmetic, (*b*) geography.

8. Describe the means you would adopt for engaging *the attention* of a class before beginning a lesson, and for maintaining or restoring it as the lesson proceeded.

8. In arranging the several classes in a school-room how would you guard against *interruption from their over-hearing each other while at work?*

10. Describe the *Registers* kept in your school.

11. Did you experience any difficulty in maintaining your authority over the children in school while you were a Pupil-teacher? From what causes did this difficulty arise? By what means did you endeavour to overcome it?

12. How would you check *conceit* in a clever, ambitious, and painstaking child, who, at an early age, had reached the higher part of a school?

How do you deal with a well-disposed child, who was lower down in the school than most ef those of the same age, was never likely to reach the top, and was suffering from *discouragement?*

13. Was there any *play-ground* attached to your School? What are the advantages of having a play-gronnd attached to a School? What games are best for children (according to age) in their play time?

14. Write the notes of a lesson on *one* of these subjects :—

Gold
Air
Wages
The Moon

RELIGIOUS KNOWLEDGE.

Three Hours allowed for this Paper.

1. Draw a Map to show the position of the following countries :—

Chaldæa
Assyria
Syria
Palestine
Egypt

a. Put in the following towns :—

Babylon
Nineveh
Damascus
Jerusalem

b. And the following rivers :—

Tigris
Euphrates
Jordan.

2. Write a short history of Abraham.

3. "Think not to say within yourselves, we have Abraham to our father." Give the rest of the verse.
Who spoke these words, and on what occasion?
Quote as many texts as you can from the New Testament writings to prove—
a. That the Jews *misunderstood* the promises made to Abraham—
b. The true sense in which those promises *are to be understood.*

4. Quote as many texts as you can from Holy Scripture to show why the Mosaic Law was ordained in the time between Abraham and our Lord Jesus Christ.

5. Mention those events from the Acts of the Apostles which most chiefly illustrate the admission of the Gentiles to the Christian Church.

6. Mention parables from the New Testament which enforce each of the following duties :—
a. Earnest prayer to God.
b. Humility.
c. Forgiveness of injuries.
d. Preparedness for death.
e. To be doers, and not hearers only.

7. Write out (as nearly as you can in the words of Scripture the parable of the Prodigal Son.)

8. Write out a consecutive account of our Lord's Passion, beginning at the Garden of Gethsemane, and ending with His death on the Cross.

9, Explain the following terms with reference to the Church Service :—

Confession
Absolution
Prayer
Psalm
Lesson
Hymn
Collect
Litany
Communion

10. Write out in the words of the Catechism answers to the following questions:—

a. The meaning of the word Sacrament.
b. The number of Christian Sacraments.
c. The Parts of a Sacrament.
d. The Parts of Baptism.
e. The Parts of the Lord's Supper.
f. The Preparation for Baptism.
g. The Preparation for the Lord's Supper.

HISTORY AND GEOGRAPHY.

Three Hours are allowed for this Paper.

1, Draw an outline of the *Coast* of Great Britain, and put *the following letters* in proper parts of the Map, viz.—

A, To denote where Cæsar landed.
B, Where Queen Boadicea ruled.
C, Where Caractacus ruled.
D, The Roman Wall.

2. Name the Counties which denote the same parts of the country at this time.

3. Draw an outline of the *Coast* of Europe, and put *the following letters* in the proper parts of the map

A, To denote the country from which the Romans came.
B, To denote the country from which the Saxons came.
C, To denote the country from which the Danes came.
D, To denote the country from which the Normans came

4. Write down separately anything that you remember te distinguish the Romans, Saxon, Danish and Norman inhabitants of this island from each other.

5. What is there in the North and West (particularly) of Great Britain to show that these four races of people have not been the only inhabitants of the island? How does Geography in this case help to prove the facts recorded by by History?

6. What were the most important towns of England a hundred and fifty years ago, and what are the most important now? How do you account for the changes that have occurred in the distribution of the population during this interval?

7. Why is it important to remember the following reigns?—

Egbert	Henry VIII
Alfred	Charles I.
William I.	William III.
Edward I.	

8. What is meant by a *Colony*? Name the principal British Colonies. What induces people to become Colonists? Is it useful, or not, that people should become Colonists? Why?

9. Name the principal Plants (growing in Great Britain) that are used for human food. Describe the appearance of each of them *as it grows*, and the shape in which it is *principally consumed for food*, with any particulars that you can remember about the manner of *preparing it for consumption.*

10. Where are the following places, and what makes each of them remarkable or important?

Isthmus of Suez.
Isthmus of Panama.
Trieste.
Gibraltar.
California
Behring's Straits.
Constantinople

11. Mention some of the principal circumstances that render one country less healthy than another. Name as many countries as you can by way of example.

12. What is meant by *Raw Material*? What is meant by *Manufacture*? Give any instances that you can remember from Geography, to show how these two things connect different parts of the world together.

13. Explain, and give examples of, the following terms in Geography:—

Lake.
Cape.
Cliff.
Table-land.
Glacier.
Falls.
Spring.
Pass.

ARITHMETIC.

Three Hours allowed for this Paper.

1. Explain, as you would to a class, the rule for "*borrowing*" in Subtraction.—

Example:—Take 934 from 1427.

2. Multiply £25 9s. $7\frac{1}{2}$d. by 51, and divide the product by 42.

3. Find in what time a body moving with the velocity of sound (1130 feet per second), would pass from the earth to the sun, a distance of 95 millions of miles.

4. If the yearly rent of 18 acres be £42 15s. 9d. find the rent of 29 acres at the same rate.

5. Find the value of 457 articles—

1.—At 3s. 8d. each.
2.—At 9s. $7\frac{1}{2}$d. each.
3.—At £1 13s. 4d, each.

6. In what time would 17 men make a quantity of grass into hay which 30 women would make in 9 days, supposing that 7 men can make as much as 11 women?

7. At what price must linen which cost 2s. $10\frac{1}{2}$d. per yard be sold to gain 15 per cent.

8. Find the interest (1) simple (2) compound on £230 15s. 0d., for 3 years 7 months, at $4\frac{1}{2}$ per cent. per annum.

[*The following questions are not required to be answered by Female Candidates.*]

9. Find the product of the sum and difference of $6\frac{1}{3}$ and $4\frac{1}{4}$.

10. State and prove the Rule for pointing the product in Multiplication of Decimals.

Examples:—

(*a*) $1{\cdot}07 \times {\cdot}0320.$

(*b*) $\dfrac{{\cdot}0021 \times 3{\cdot}004.}{{\cdot}024.}$

11. Find the sum of £·775. ·824s. and ·305 of a crown, and express it in decimals of a guinea.

12. What books are required in Bookkeeping (1) by single and (2) by double entry? Shew the use of each of these Books.

GRAMMAR.

Three Hours allowed for this Paper.

1. What is the use of grammar?

2. What is the difference between a *word* and a *sentence?*
Is every collection of words a sentence? Give the reasons of your answer.

3. Into what classes does Grammar divide words?
Which of these classes are the first in order? Why?

4. What is meant by inflexion?
What classes of words in English Grammar are subject to inflexion? Give instances.
How is the want of inflexion supplied in English? Give instances.

5. Examine the following expressions.—
She is older than me.
It is only me.
It was neither in Julius, Augustus, nor Tiberius Cæsar's reign.
The house was three years building.
The dinner was being cooked.
The church is intended to be restored.
I do not know whom you wish should have the place.
There was no one but him.
They were now entered into the temple.
Is he or I the tallest?

6. Explain the different derivation of *royal* and *regal—loyal* and *legal—bishop* and *episcopal—father*, *paternal*, and *patriarchal*, and of *druid* and *bard*, compared with *crag* and *glen*.

7. What is a pronoun?
How many sorts of pronouns are there?
State the grammatical difference between—

I. me, us,
Her, it, he,
You, they, we,
Thou, him, thee,
My, mine, theirs,
Who, which, what.

Decline (gender and case) *whosoever*.

8. Give the principal rules for analyzing sentences.

9. Analyze the following sentence:—

(N.B.—The words printed in *italic* refer only to the Eleventh Question in the Paper.)

It is in knowledge as it is in plants; if you *mean* to use the plant it is *no* matter for the roots; but if you mean to remove it to grow, *then* it is more *assured* to rest *upon* roots *than* slips: so the delivery of knowledge, as it is now used, is *as* of fair bodies of trees, *without* the roots; good for the carpenter, but *not* for the planter.

10. Paraphrase *each* of the following passages:—

(*a*) There is no defect in the faculties intellectual, but seemeth to have a proper cure contained in *some* studies: as for example—if a child be birdwitted, *that* is, hath not the faculty of attention, the mathematics *giveth* a remedy *thereunto*; for in them, if the wit be caught *away* but for a moment, one is to begin *anew*. And as sciences have a property *towards* faculties for cure and help, *so* faculties *or* powers have a sympathy towards sciences for excellency or speedy profiting: and therefore it is an inquiry of great wisdom *what* kinds of wits and natures are most apt and proper for what sciences.

(*b*) Henceforth I learn that to obey is best,
And love with fear the *only* God; to walk
As in His presence; *ever* to observe
His providence, and *on* Him sole depend,
Merciful over all His works; with *good*
Still overcoming evil, and by small
Accomplishing great things, by things deemed weak;
Subverting worldly strong and worldly wise
By simply meek; that *suffering* for truth's sake
Is fortitude to highest victory,
And, to the faithful, death the gate of life;
Taught this by His example whom I now
Acknowledge my Redeemer ever blest.

11. Parse the words printed in *italic* in questions Nos. 9 and 10.

12. Under what circumstances is the letter *s* pronounced as *z*, and the letter *c* prounced as *s*? What are the proper sounds of *g* and *j* in *judge*, of *ch* in *church*, of *z* in *azure*, of *tu* in *nature*, and of *du* in *verdure*?

AAGEBRA.—Section II.

1. Find the value of $\frac{4\,a + b}{b^2 - c} + (a - \overline{b - c})\,(2\,a - b\,c)$.

When $a = 5$; $b = 4$; $c = 3$.

2. Multiply $a + x - y$ by $b - (x + y)$.

3. Find the greatest common measure of

$$a^2 - 5\,ax + 4\,x^2 \text{ and } a^3 - ax^2 + 3\,ax^2 - 3\,x^3.$$

4. Divide $\frac{x^2 - y^2}{(x - y)^2}$ by $\frac{x^2 + xy}{x - y}$.

5. Solve two or more of the equations:—

$$(1)\quad x - 5 = \frac{3\,x}{9} + 3 \qquad (2)\quad \frac{x + 3}{7} - \frac{x + 7}{3} = x - 15$$

$$(3)\quad \frac{x}{a} + c = \frac{x}{b} - d \qquad (4)\quad \left\{\begin{matrix} x + y = m \\ ax + y = n \end{matrix}\right\} \text{ find } x \text{ and } y.$$

$$(5)\quad x^2 - x - 40 = 170. \qquad (6)\quad \left\{\begin{matrix} 2x + y = 17 \\ x^2 - y^2 = 11 \end{matrix}\right\} \text{ find } x \text{ and } y.$$

6. A and B. together, can finish a piece of work in 8 days, which would take A alone 12 days. In what time could B alone do it?

7. A farmer sold an ox for £24, and gained as many pounds per cent., as the ox originally cost. What did the farmer pay for him?

Section III.—MENSURATION AND MECHANICS.

1. Write down the tables of long and square measure. Explain the relation that exists between them, and the object for the attainment of which the particular length of the chain has been selected.

2. Explain the construction of the A level. How would you lay out a drain by means of it?

3. Explain the process which you would adopt to ascertain the area of a rectilineal field of 5 sides.

4. A mail coach weighing two tons, travelling at the rate of 10 miles an hour, may be worked on a line of road, on which the co-efficient of friction is $\frac{1}{12}$, in both directions, by a number of horses equal to the number of miles. Find the horse-power in this case.

5. State accurately what is meant by the principle of the parallelogram of forces.

6. Define the centre of gravity of a heavy body. Find this point when the body is a uniform triangular lamina.

EUCLID, ALGEBRA, MENSURATION AND MECHANICS.

Candidates are not permitted to answer in more then *one* of the three sections into which this paper is divided. *No marks will be given for Papers in which this direction is not observed.*

Three Hours allowed for this Paper.

Section I.—EUCLID.

1. If two angles of a triangle be equal to each other, the sides also which subtend, or are opposite to the equal angles, shall be equal to one another.

2. To draw a straight line through a given point parallel to a given straight line.

3. The complements of the parallelograms, which are about the diagonal of any parallelogram, are equal to one another.

4. If a straight line be divided into any two parts, the square of the whole line is equal to the square of the two parts, together with twice the rectangle contained by the parts.

5. To divide a given straight line into two parts, so that the rectangle contained by the whole line and one of the parts, shall be equal to the square of the other part.

6. Draw a tangent to a given circle from a given point either in, or without, the circumference.

7. If two straight lines cut one another within a circle, the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other.

8. To describe a circle about a given triangle.

DOMESTIC ECONOMY (FEMALES.)

Three Hours allowed for this Paper.

N.B. At the end of each answer let each candidate name the text book (if any) which she has used.

1. What is the best way of lighting a fire? Give your reasons.

2. Wherein consist the nutritious qualities of milk, potatoes, and wheaten bread?

3. Compare the nutritious qualities, and digestibility, of beef, mutton, pork, veal, and lamb.

4. What are the effects of roasting, boiling, and stewing upon meat? Which process is the most economical? Why?

5. How do you boil an egg? Give reasons for the time you allow.

6. Give receipts for cheap meat soups, with estimate of their cost.

7. Give full directions for washing woollen stuffs.

8. How would you make a bread and water, a linseed, and a mustard poultice? For what are they each intended?

9. How do you take iron mould, ink spots, and fruit stains, out of linen?

PAPERS FOR THE SCHOOLMASTER.

No. 36. FEBRUARY 1, 1854.

Queen's Scholarships.

The result of the Examination for Queen's Scholarships has been declared, and the number of successful Candidates is highly creditable to all parties who have been interested in their education. The list is published in this number, and we have reason to believe that comparatively few will find their names missing. It appears that the Battersea and Cheltenham (Male) Institutions have had a larger number of successful applicants for admission than they can accomodate. They will naturally therefore select those who seem worthy of preference, and the remainder will be recommended to other Institutions which still have room.

We shall be very happy if any word of advice on our part can be made useful to those Candidates who have not been successful. It seems to be the most desirable that they should accept the office of Assistant Teachers in schools which are willing to receive them under the late Minute. In such an office they will receive a certain remuneration from the Government to which an addition is usually made by the managers of the school. At the end of the year they will then be in a position to compete again for a Queen's Scholarship which they will have the privilege to keep for one year, or for two, as they desire. At the end of two years from the present time they will be therefore in circumstances scarcely different from those now occupied by their more successful compeers. Such as desire this course should put themselves in communication with the Principals of the Institution where they were examined before Christmas. Failing this, unsuccessful Candidates should apply to a Training College for an exhibition, as there must be a great probability that those which are not absolutely already filled would be likely to grant one for the first year, on condition that the exhibitioner will remain for the second year as a Queen's Scholar. No time should be lost in instituting the necessary enquiry and maturing the arrangements, as the Committee of Council on Education have fixed upon the 7th of next month as the utmost term within which Queen's Scholars and Candidates for Certificates next December must go into residence at the Normal Colleges.

Examination for Certificates.

In our last paper, we brought our remarks down to the subject of Geography; next in order stands the "Organization, Discipline, and Management of an Elementary School." This subject is professionally the most important, and, at the same time, the most difficult to compass. Every point connected with school-keeping is at present in a transition stage. In the same district is to be found nearly every variety of organization. The same is true of our Normal Schools and Colleges, the managers of which have adopted different models. Teachers turn in vain to the opinions of H.M. Inspectors, as expressed in their annual reports; but where uniformity might be expected, if anywhere, all is diversity, one inspector differing from another, and in some cases from his former self. Managers and teachers are fairly bewildered; anxious, nay, under a necessity to a certain extent, to meet the wishes of the inspectors, they nevertheless, frequently feel the difficulty of doing so insurmountable. The school is refitted to adapt it to a certain organization; when a change of inspectorship brings a necessity for fresh changes to meet fresh views. Such a state of things is perhaps unavoidable in the present period of our educational history, though it is sufficiently perplexing, while the uncertainty which is felt, in a measure prevents that close attention to organization and method, which should be one of the chief characteristics of an improved race of teachers.

Every teacher proposing to offer himself for examination on this subject, should first of all understand the organization, discipline, methods, and management of the school in which he labours. He should be able to say at once what the general type of the organization is; what classifications are made; what subjects are allotted to the several classes; and what agency is employed to perform the several parts of the work to be done. The whole of these particulars should be tabulated, so as to make a time-table, and he should accustom himself to write out, with great thoughtfulness, clearness, and intelligence, the reasons he would assign for adopting these arrangements in preference to others; or, to state the matter as plainly as possible, he should be able to give an intelligent reply to questions like these—What general organization do you adopt?—Upon what principle do you classify your children?—What are the subjects apportioned to each class, and why such subjects in a given class?—What subjects do you teach to large groups, and what in the classes?—What reasons can you give for this arrangement in large and small groupings for these particular subjects?—Under what circumstances should Geography, History, &c., be withheld from a given class?—Upon what principle do you distribute the teaching power in the school?

Understand next what *Discipline* is, and the various methods by which the will may be controlled; what motives are, and how they are to be applied. In your own school certain forms of rewards and punishments are adopted, seek to understand why; whether simply from a blind imitation of precedent, or from an intelligence on your own part of the power possessed by each appliance, to move the mind and conscience in a right direction. You should be able to answer such questions as these—What effect is produced by a private scolding?—What is likely to be the difference in this result, if instead of doing it privately, it is done in the presence of the whole school?—In what way does the cane operate on *the will*, why apply it in certain cases and not in others, and is its efficacy in direct or *inverse* proportion to quantity?—In what way does confinement in the schoolroom without a dinner improve a boy's character?—Why are some boys less manageable than others?—What various temptations lead children to untruthfulness, and why is not the same method of treatment applicable in all cases? In addition to a knowledge of the methods for preventing and punishing offences, there should be also a clear conception of the best methods of developing virtuous character. Not a few fail, especially in the latter, simply because their idea of discipline is too narrow; with them it has been little more than a synonyme for punishment—restraint but not development. True education includes both, and yet the question of development has rarely been carefully dealt with. Those who really wish to do well, should take as much pains in working out these questions correctly in mental and moral science, as mathematicians do in geometry. Take for instance the question—How can I best cultivate truthfulness in the school? Call this a problem if you will, put it at the head of a sheet, and solve it. You will soon find how wide a field of enquiry is opened, and with what earnestness you will begin to enquire for the experiences of others. Preserve your solution, and add as opportunity serves any new light on the subject, as well also as the results of your own experiments. Adopt some such plan, and you will soon begin to realise both the importance and difficulty of your mission; this being done, if you are not lacking in energy of character, you are in the sure road to excellence.

Questions on *Management*, taking the term to mean the minor details of school-keeping, not included in Organization, Discipline, and Method, should not present any difficulty to persons familiar with life in the schoolroom.

Method is of much wider scope, and properly includes in it, all the *ways* by which instruction is given, and the principles upon which they are based. Every teacher adopts some method of teaching the several subjects of school instruction. This method he should be able to state clearly, and should moreover be able, if called on, to state what other methods are employed for the same purpose, and what are the merits peculiar to his own plan which leads him to adopt it in preference to others.

For the reason mentioned at the commencement of this article, it is impossible to recommend any individual text-book on the subject of school management. The necessary information must be gleaned from many sources. It has been one of the chief objects contemplated in the "Papers for the Schoolmaster" to supply, as far as our space would permit, this kind of practical information. Besides the numerous articles which have already appeared on Method and Management, we have in store a series of others on the Principles of Teaching, and the Principal Systems or Methods of Elementary Instruction known in England. These we propose to introduce as soon room can be found. The following select list of books may be recommended in connection with the subject of this paper:—Dunn's Normal School Manual; the Rev. Dr. Bell's Manual of Instruction; Stow's Training System; Abbot's Teacher; Wood's Sessional School; Mann's Educational Tour; Dawes's Suggestive Hints; Wilderspin's Infant Discipline; Mayo's Infant Education.

Preparation for the Study of Astronomy.

A vast number of treatises on Astronomy intended for popular use have of late years issued from the press, and no doubt obtain numerous readers if not students; yet it is comparatively rare to meet with persons, even amongst teachers, sufficiently acquainted with the aspect of the heavens to recognize the principal stars and planets, and to observe their positions at different times and seasons, with the various interesting phenomena of almost daily occurrence to which attention is directed in our almanacs, and which may be seen even without the aid of the telescope.

It should not be forgotten that before any of the elementary works in common use on the *science of Astronomy* can be profitably studied, the learner ought to be tolerably well acquainted with the map of the heavens, and the principal stars and constellations should be as familiar to his eye as the chief towns and countries on the map of the earth's surface to the eye of the student of Geography. It is, however, by no means uncommon in elementary schools for boys and girls to commit to memory the distances, magnitudes, periods, &c., of the principal planets which revolve in company with our globe about the sun. Nevertheless with this knowledge it is seldom that an instance can be found where teacher as well as pupil would not feel utterly at a loss to tell in what part of the sky to look for a given planet on any particular evening, or even to distinguish between one and a fixed star.

There can be no reason why our National Schoolmasters, Schoolmistresses, and Pupil-teachers should not be expected to learn enough of the glittering canopy of the heavens, to be, at least, able to point out Castor and Pollux, Capella, Aldebaran, Sirius, Procyon, and other beautiful fixed stars, and also trace the planets Venus, Mars, Jupiter, and Saturn, in their ever-varying situations in the "blue ocean of space." Those to whom the starry firmament appears merely to present a confused mass of glittering points, can form but little conception of the never-failing source of delightful interest in the contemplation of the visible planetary changes from week to week, month to month, year to year, and certainly cannot appreciate intelligently the scientific explanations of them. It is to be hoped that ere long this subject will receive more attention than hitherto in schools, and that the importance of some familiarity with the principal stars and groups of stars visible to the naked eye, will be perceived as a necessary preparation for the study of Astronomical *science*, however elementary and popular in its form.

S.A.G.

The Teacher's Gifts.

We propose to consider, under this title, the more prominent of those natural qualifications which enter, in combination, into the character of a good teacher. Among these we count—

The gift of personal influence upon others.—We remark in men, from whose glance vital energy beams out, that they kindle as it were an answering fire in others. The teacher fixes a clear and searching eye upon his boy; intelligence answers intelligence, and an inner bond of sympathy is established. Still, more influence lies in the manner of addressing them; even in the tone of voice there is something, which takes hold of the school, inspires confidence, and imparts a happier tone of feeling. In the countenance a mild earnestness, even the play of the features, is not indifferent; a simple movement has often all the power of an illustration. This power of influence is a gift of nature, but one of the highest value to the teacher.

The gift of insight.—A man's inmost nature is constantly betraying itself in his face and features, by his looks, and his expressions; and we recognize in ourselves a power of observation which penetrates into the closest recesses, and discovers the ruling powers and inclinations, as well in the moral as in the intellectual nature. This power is of the utmost value to the schoolmaster, and should be sedulously cultivated. Some knowledge, moreover, of the science of the mind is almost necessary, partly to enable him to gain some accurate knowledge of his own and human nature generally, its constitution and its laws, and partly to assist him in dealing with it in others carefully and wisely. From this study would be gradually gained that instinct of insight which must be his universal guide, if he would work to any purpose in his school. And this gift of insight alone is almost sufficient to make a good teacher. If he wish to work his school thoroughly, to deal with each child with an eye to his individual nature, let him embue himself with the spirit of this study. And let him not trust alone to his natural power of reading character, but cultivate the knowledge of the mind as a science.

Power with impracticable dispositions.—There meet us sometimes conditions of disposition with which teaching is simply inefficacious, or else absolutely detrimental. We may instance extreme sensitiveness, or sluggishness, or impatient fretfulness. The teacher must be able with a look to repress these feelings from time to time as they show themselves, and to hold them in check as his opportunities allow him. And not only faults of temper, but the excesses of amiable temperaments have to be kept within limit during the hours of school. Cheerfulness should never be allowed to run into merriment.

An open hearty sympathy, such as may convince the children that the teacher has their welfare at heart, and his heart in his work.

An instructive purpose of active uniform energy.—The teacher must show himself always active in his school, and that too with a regulated impulse which keeps the main object of the school always in sight. Listlessness in the teacher is sure to undermine the activity of the children, and check their progress in everything.

The power of taking cheerful part in the pleasures of children.—The teacher should encourage every disposition which makes him seek his happiness in the circle of his children, and so increase theirs.

Clearness and precision in communicating.—A teacher who possesses but a limited measure of knowledge, but within that range has clearness of conception and consequent precision in teaching, will accomplish certainly as much, if not more, than one who has a far greater amount of knowledge, but with no distinctness or order in his head. Nor should we omit to take note that the effort after clearness and precision of expression will not be without its effect as an example upon the children. It is a great misfortune for elementary schools when the education of the teacher aims more at the attainment of a mass of information than at precision, exactness, and accuracy of knowledge and teaching.

A firm religious faith, to which the expectation of eternity gives strength and consolation in all troubles or disappointment. Religious feeling must be the ground-tone of the teacher's soul. The image of Christ must manifest itself in him, and the children may thence learn more of the image from the manifestation. A pious spirit is in all things important to the Teacher, it is not only important, but absolutely indispensible.

An ever active zeal for self-improvement.—We may expect little from a teacher who has no concern for his own advancement. The progress of the master is a matter which concerns the school essentially.

Conviction that schools are a necessary condition to the elevation and advancement of mankind.

Moral courage to check all impulse to sensuous enjoyment with a word of wisdom.

Personal worth.—To keep at a distance everything low and mean, and to win for himself respectability, consideration, and esteem.

An unassuming, modest, teachable disposition.—We cannot do better, on this head, than give the words of an experienced educationist. "In no position is there greater necessity to guard against arrogance or self-conceit, while, at the same time, no one is more good-for-naught than the teacher without true modesty. An empty, puffed-up, artificial, deceitful, severe, heartless, opinionated teacher is of all men the most contemptible. The teacher who is wanting in love to the hearts of his children, however much he makes of their understandings, is deeply sinning. His highest object is to educate clever and conceited children only to grow into subtle and useless men."

And in few words I would say, that I would value more an ignorant schoolmaster, who has the true welfare of his children at heart, and is himself embued with a Christian cheerful spirit, than one clever, intelligent, and vain, who had every knowledge but that of love. He is truly "sounding brass, and a tinkling cymbal."

Love for the people, as well as for the middle and higher classes of society. A man who is out of sympathy with the people, amongst whom he is a teacher and educator, can scarcely work with and for their children with earnestness and zeal.

Besides these mental and moral qualifications, we might mention some which are physical, by no means unimportant. Let these, however, content us to have urged for the present.

—*German Encyclopedia of Education.*

Sketches and Notes of Lessons, and How to Use them.

As pupil-teachers and others are often required to make written sketches of collective lessons, the following hints, as to their preparation, may perhaps be of service :—

Two objects must be kept in view. The written sketch should comprise a summary of the facts which are to be embodied in the lesson ; and it should also describe the style and manner of teaching them. With reference to the former of these objects, it should be remembered that—

I. The number of facts should not be greater than the children can be reasonably supposed to learn thoroughly in the time devoted to the lesson, and to remember afterwards.

II. The new truths, which the teacher designs to impart in the course of the lesson, should be carefully distinguished from the knowledge which the children are supposed to posses previously. The sketch should describe carefully what the writer proposes to draw out from the class, and what he intends to communicate to it.

III. The facts should be distinctly arranged under separate headings, and certain words, indicating classification, should be distinguished by underlining, or some other method, as forming the sketch, or skeleton, to be left on the black-board.

IV. All that is included in the lesson should have a unity of purpose and of plan. No facts should be given which are not connected with the main object, and all digression should be carefully avoided.

V. It must be remembered, that the required sketch is not expected as a display of recondite learning on the teacher's part, and will not be valued as displaying the amount of his acquirements ; it is simply required to show how much useful and rememberable information can be communicated to a class of children in a given time, and in what order it can best be done.

With regard to the second object contemplated in making out notes of a lesson, viz., the description of the manner and style of giving it, it is worth while to notice, that—

I. Whatever illustrations, pictorial or otherwise, need to be provided before the lesson begins, should be carefully specified and described.

II. The manner of introducing the subject, whether by a few simple questions, or by a little familiar exordium to awaken interest, should also be described.

III. The method of developing the subject should be shown in like manner; how much is to be done by questioning, how much by teaching; when ellipses are to be employed; when recapitulation, &c.

IV. Any lessons or general inferences aimed at in teaching the facts should be stated at the end. These inferences should grow out of the subject, and not be loosely attached to it. Moral lessons especially should not be obtruded upon subjects with which they have no concern. The wisdom and goodness of God, though an inference to be drawn from the contemplation of all natural objects, must not be put down as a stock moral, with which to wind up every lesson. If so, it will altogether lose its force. The more sacred and valuable a religious truth is, the more care is needed to place it in none but the most effective and striking light. Any very remarkable instances of design may, of course, be taken to illustrate the usual lessons of natural theology; and if a teacher economises the repetition of such lessons, they will be impressive and useful. The same remark applies to the use of texts of Scripture, which, if introduced wisely, will fasten themselves very firmly in the memory, and be the means of binding together all the facts which are associated with them; but their force is greatly weakened by bringing them in at the wrong place.—*Educational Record.*

Educational Intelligence.

LIST OF SUCCESSFUL CANDIDATES FOR QUEEN'S SCHOLARSHIPS (MALES). CHRISTMAS, 1853.

CLASS I.—R. Essex, Avening; W. Handford, Liverpool; W. Seaton, Plymouth; T. Hopper, Durham; W. Brooks, Cambridge; W. Bailey, Welchpool; W. Bell, Port St. Mary, Isle of Man; T. Page, Cheltenham; W. Greenwood, Keighley; W. Clay, Woodhouse, Huddersfield; W. Dodge, Bath; T. P. Studd, Ipswich; J. Price, Wraxhall; W. J. M'Kean, Burbage; T. Ward, Melton Mowbray; J. Carter, Warminster; C. Bilton, Beverley; E. Foster, Wakefield; T. Kirk, South Collingham, E. Johnson, Kirkdale; J. Abbott, Huddersfield; J. Nettleingham, Gravesend; C. Dawe, Plympton; R. D. Graham, Narberth; T. G. Lewis, Carmarthen; L. Kirkman Bradford; T. Gardner, Lambeth; J. Hellyer, Torquay; R. M'Cay, Liverpool, H. Hickin, Lichfield. C. Gamblin, Bishop's Waltham; S. Rooks, Tiverton; J. Smith, Bradford, S. J. Haddon, Windsor; T. Minxlom, Sheffield; J. Rowland, Little Eaton; R;

Robinson, Market Weighton; T. Whiteoak, Keighley; J. Wilson, Halifax; W. Mainwaring, Chester; H. Dalley, Clifton, T. Smith, Wednesbury; R. Lee, Grantham; E. W. R. Pearson, Thurgoland; T. Laws, Wareham; F. Cox. Rockingham; R. Baycott, Rugeley; J. Bridge, Burnley; G. T. Carey, Leeds; J. Cheal, Brighton; J. Bradley, Walsall; J. Stark, East St. Pancras'; T. H. Pegler, Paddington; M. Molineux, Walkden Moor; W. Rogers, Nottingham; W. Daintith, Grappenhall; C. T. Bolton, Buntingford; R. Heathman, Plymouth; N. Sanderson, Market Weighton; W. Gray, Ely; A. Cockman, Peckham; R. Poston, Marylebone; A. Noyce, Romsey; T. Cretney, Foxdale; G. Norvill, Weston-super-Mare; G. Stead, Barnsley; T. Porter, Manchester; E. Manning, Ipswich; J. Jones, Kirkdale; J. Lawson, Barnard Castle; E. C. White, Bedminster; H. E. Hall, Wellington; H. Lamsdale, Kidderminster; J. Niness, Penryn; J. Mensing, Redditch; C. E. Gover, Limehouse; J. W. Grove, Marylebone; F. Howard, Lambeth; H. Folley, Chalford; J. Sumner, Preston; J. Eggington, Birmingham; J. Wormald, Leeds; R. Frost, Leeds; J. Smalley, Bolton-le-Moors; A. R. Holloway, Beddington and Wallington; R. Spicer, Blandford; J. Northey, Truro; W. A. Greenstreet, Gravesend; D. Bastide, Elland G. Church, Chepstow; C. Cusworth, Sheffield; A. Luxford, Lambeth; M. Botterill, Scampston; E. Birkenhead, Manchester; R. Booth, Dukinfield; T. Hardman, Heywood; A. Jarrett, Hastings; W. P. Strickland, Wimborne; G. Wright, Stockwell; J. Gregory, Bolton; J. Cooper, Wareham; J. Trickey, Stockwell; J. Lewis, Stepney; W. Gregory, Bath; F. C. Horton, Kingsbury; E. Hargreaves, Kirkburton; V. B. Tristram, Wadsley; J. Isted, Hurstmonceux; H. Worthington, Farnham.

Class II.—A. Mears, Piccadilly; J. Ground, Pembroke Dock; T. Davey, Exeter; W. Braide, Huddersfield; W. T. Dukes, Sheffield; E. Rapson, Penryn; S. Jubb, Brampton Bierlow; D. Vaughen, Carmarthen; E. W. Hemming, Walthamstowe; D. Armstrong, Macclesfield; J. Jackson, Bolton-le-Moors; H. Jackman, Ely; T. Sheward, Kidderminster; G. Barnes, Halifax; W. Barnes, Liverpool; W. H. Harrison, Chepstow; F. Johnson, Ipswich; I. Seaman, Marylebone; A. Amos, Elsden; J. Mackenzie, Exeter; G. Rollinson, Meanwood; S. J. M'Intyre, Westminster; T. Chadwick, Heywood; G. Copus, Portsmouth; J. Jago, Aldeburgh; E. Leech, Manchester; J. Constable, Trumpington; M. Pope, Twickenham; F. Tompsett, Hastings; R. Southerton, Wilton; J. Fleming, Bath; E. Hallett, Exeter; G. Humphreys, Doncaster; W. Dunstone, Brighton; R. J. Kaighin, Isle of Man; J. Lewis, Welchpool; S. B. Wheaton, Whitchurch; E. Tennant, Hoxton; W. Hudson, St. George's-in-the-East; G. Weaver, Worcester; J. Bendall, Dursley; J. Corrin, Castletown; J. Sealey, Tetbury; H. Vidler, Ticehurst; S. Samsum, Lambeth; J. B. Whitehead, Wednesbury; G. Gildeard, Cononley; S. Burchill, Betley; J. D. Crossfield, Liverpool; G. Jolley, Smethwick; T. Ward, Highgate; J. Hudson, Epsom; J. Gadsby, Ely; J. Pascoe, Truro; J. Evans, Worcester; D. Smith, Birmingham; J. Putton, Chichester; J. Spicer, Richmond; B. Thorpe, Huddersfield; G. Dewdney, Redhill; J. Hodgkinson, Ashbourne; T. Oldham, Rochdale; F. J. Cherrington, Kennington; J. Jeffery, Chelsea; W. B. Jones, Liverpool; J. W. Young, Newington; G. M'Whan, Stanwix: D. Jackson, Goole; R. Sandham, Oakworth; T. Hill, Warren; J. D. Rees, Court-y-Bella; S. B. Shopland, Axminster; H. Kay, Castletown; C. E. Thomas, Cheltenham; C. Darwent, Wadsley; E. J. Wolfe, London; W. Morgan, Torquay; C. Conway, Birmingham; J. J. Hewitt, Bradford; H. German, Llanidloes; T. F. Moss, Alton; W. J. Maynard, Piccadilly; G. Broom, Whitchurch; H. Feather, Colne; A. Klamborowski; Cheltenham; J. Druce, Wortley; R. A. Williams, Westminster; J. Fernley, Bollington; G. Whalley, Holywell;

C. H. Pinhorn, Newport ; H. Carey, Rochester ; J. Marren, Wolverhampton ; A. Stote, Lymington ; W. Bellamy, Birmingham ; F. Hebblethwaite, Halifax ; J. O. Rusholm, Hull ; J. W. Rowe, Tenby ; W. Kingswood, Hadlow Down ; W. Holliday, Stanwix ; J. B. Atkinson, Leeds ; J. T. Crowther, Fartown ; W. H. Goodwin, Paddington ; T. Davies, Blaenafon ; E. Hart, Milton Abbott ; J. Best, Bradford ; G. Hemming, Cheltenham ; A. Cull, Tewkesbury ; W. Jonson, Smalley ; R. Roberts, Donnington Wood ; H. Chandler, Tewkesbury ; H. Best, Sheffield ; G. Home, Bishop's Castle ; R. Gaskill, St. Michael's-on-Wyre ; R. Seddon, Athertod ; C. N. Line, Salisbury ; J. Statham, Withington ; G. Spanner, Oakfield ; W. Hewitt, Staines ; E. Chapman, Bath ; G. Gwinn, Windsor ; E. Carlile, St. Marylebone, J. Outlaw, Norwich ; J. Francis, Hampstead ; T. Renn, Windsor ; G. Brame, Ipswich ; B. Crowther, Halifax ; E. Yates, Bushbury ; W. Bywater, Ingrow ; R. Young, Rotherhithe ; L. Potts, Haggerstone ; E. W. Craddock, Worcester ; C. J. Gee, Cheltenham ; E. Jeffcock, Attercliffe ; W. Preston, Leeds ; J. H. Barber, Brierley Hill ; W. Gillingham, Brixton ; R. Smith, Darlington, J. Roe, Wareham ; A. J. Esau, Bristol ; J. T. Gould, Pontypool ; C. Caldicott, Coventry ; E. Claque, Malew ; R. E. Anderson, Almondsbury ; J. Palmer, Weston super-Mare ; R. Wybergh, Carlisle ; Alfred Glover, Leeds ; G. Price, Warminster ; E. Allen, Croydon ; H. P. Gum, Chelmsford ; E. Norman, Rotherfield ; J. Welch, St. Marylebone ; R. Covington, Westbourne ; G. Whitfield, Meanwood ; T. John, St. Bride's ; E. Smithyman, Broseley ; J. Gribble, Trevenson ; W. Hodges, Ticehurst ; A. Best, St. Thomas's, Newcastle-on-Tyne ; W. Hugill, Leeds ; W. Millington, Worsley ; J. K. Long, Birmingham ; H. Franklin, Oxford ; T. Gilligan, London ; J. Paton, Westminster ; J. Rogers, Tewkesbury ; J. R. Hadfield, Halifax ; J. G. Nash, Trowbridge ; J. Philips, Wednesbury ; E. Dyke, Taunton ; B. Evans, Uzmaston-cum-Bolston ; J. Worth, Huddersfield ; T. Osborn, Stepney ; H. Gornall, Bradford ; J. Nicholls, Tresco ; J. Crennell, Kirk Andrews ; J. R. Prouse, Yeovil ; W. J. Gwyther, Clifton : W. Noble, Allenhead ; W. Chambers, St. John's Wood ; E. J. Watson, Burnley ; J. Banning, Northallerton ; W. Raper, Leeds ; A. Cooper, Alton ; C. Goostry, Skelton ; J. Brown, Yeovil ; W. Catford, Ilfracombe ; J. Michael, Hay ; E. Wilcocks, Plympton ; W. I. Farthing, Middlesbro' ; R. Gadie, Settle ; F. Goshawk, Harrow ; J. Cooke, Walkden Moor ; P. L. Jones, Newtown ; L. Lewellyn, Southwark ; W. H. Pickles, Kingcross, near Halifax ; W. Wood, Whitstable ; C. Garner, Preston ; J. T. Pope, Wakefield ; G. H. Hirst, Thurstonland ; T. Evans, Llandygwyld ; J. Mullany, Camden Town ; E. Owen, Llanidloes ; J. Hunt, Ryde ; G. B. Fretwell, Bethnall Green ; S. Boundy, Exeter ; W. Calloway, Exeter ; J. Carpenter, Dawlish ; J. Evans, Cilgerrau , J. Williams, St. George's-in-the-East ; T. Holmes, Hurdsfield ; G. Manley, Atherton.

FEMALE.

Class I.—H. Barret, Burton Agnes and Neswick ; A. L. Clarke, Saffron Walden ; H. Aves, Lee ; M. Russell, Ipswich ; A. D. Fanlder, Liverpool ; J. Fox, Bradford ; E. Evans, Derby ; E. Cornwell, Witham ; J. Masterson, Leeds ; E. Teeton, Northampton ; E. A. Dudley, St. Pancras ; M. Kemp, Norwich ; H. Riley, Halifax ; S. Reynolds, Bolton ; J. Southern, Cheltenham ; M. A. Watts, Cheltenham ; M. A. Chilvers, Warrington ; J. Page, Hastings ; M. A. Black, St. Pancras ; E. Macgregor, East St. Pancras ; M. A. Shaw, Kirkburton ; M. A. Zelland, Tavistock ; L. Capers, Warwick ; Ann Thompson, Leeds ; J. Maskell, Cookham ; J. Hillier, Camden Town ; A. Carter, Weymouth Terrace ; E. Spray, Hastings ; E. Berry, Ramsgate ; E. Foster, Hastings ; M. M. Roalfe, Canterbury ; E. Spriggs, Piccadilly ; E. Windsor, Clevedon ; M. A. Stephens, Milverton; A. Henney, Lichfield; M. B. Lerry, Walsall; S. Fisher, Weston-super-Mare; M. Wheeler, Windsor; L. Humphries, Trowbridge; E. A. Holdsworth, Halifax; E. Bellamy, Stepney; J. Schofield, Kirksall; J. Skyrme, Camberwell; C. A. King, Ipswich; C. Aucutt, Brighton; M. Child, Kirkstall; H. Harden, Chichester; C. S. Jackson, Godalming, E. Lawton, Silkstone; H. Lomax, Borrowash; S. K. Hooper, Bosbury; E. J. Bevan, Bedminster; A. Bedford, Halifax; R. J. Edgley, Ipswich; M. Gum, Chelmsford; E. Cox, Corscombe; A. Bayliss, Warwick; R. H. Nettleton, Horbury; E. Caldwell, Westminster; L. Banks, Stepney; M. Siddall, Sheffield; S. Fox, Whitelands; M. A. Wells, Godalming; M. Willis, Onslow and Annesley; H. Thorne, Bedminster; E. Nash, Norwich; H. Maxwell, Stanwix; E. Parks, Maidstone; E. Pendred, Northampton; M. Cooke, Godalming; J. Lawson, Roos; C. Healey, Derby; E. Judd, Warwich; M, Roberts, Pershore; M. A. Randall, Trowbridge; J. Constable, Cheltenham; Elizabeth Waite, Leeds; S. Withers, Walcot; M. A. Summointe, Sheffield; M. Barton, Macclesfield; H. Bowen, Rhydberth; M. A. Hooper, Exeter; H. Lowry, Stanwix.

CLASS II. – A. Haddon, Windsor; J. Ashton, Stretton; F. Hudson, Salford; E. Jeffrey, Southampton; D. Willims, Tavistock; E. Viney, Wilton; E. Smith, Warrington; A. J. Taylor, Liverpool; J. Stephens, Milverton; H. Tennant, Hoxton; A. Shields, Salford; M. A. Cox, Tiverton; S. Burrell, Leeds, R. R. Rose, Gt. Chesterford; A Mills, Marylebone; E. Galton, West Tytherley; E. E. Searle, Ashdon; E. Osmond, Lenton; C. Payne, Exeter; F. Norgate, Tichborne; J. Walker, Hull; M. Carothra, Leeds; E. Teeling, Rotherhithe; M. A. Mosselman, Stepney; M. Goostry, Shelton; E. Roberts, Hockliffe; S. White, Warminster; A. Swinson, Freehay; B. Whitham, Gargrave; C. Skinner, Burwash; J. Thomas, Newport; E. Sayers, Bedminster; E. Moore, Piccadilly; J. Hooper, Tiverton; R. Darwent, Wadsley; S. Driver, Maidstone; M. A. Watts, Westbury; S. A. Simmonds, Cainscross; M. Morgan, Bedminster; A. Garner, Eccleshall; S. A. Musprat, Salisbury; S. Meadows, Rotherhithe; E. Jephson, Westminster; M. Reade, Wilton; M. A. Lloyd, Gillingham; E. W. Monk, Tavistock; L. Lovelace, Saffron-hill; E. Bullock, Westminster; E. Arnold, High Cross; J. Coveney, Rochester; E. S. Coomb, Salisbury; E. Hardcastle, Denby Grange; E. Blatchley, Bath; E. S. Lush, Emnore Green; E. C. Morris, Rochester; E. J. Purchase, Barnstaple; J. Stockwell, Melksham; E. Lucas, Bolton; E. Richardson, Douglas; E. Harker, Grassington; H. Bass, Springfield; Ellen Gaisford, Trowbridge; S. Law, Northampton; E. Bull, Burwash; E. G. Cooper, Charterhouse; C. Speargnt, Onslow; G. H. Hartley, Halifax; E. A. Cole, Newport-on-Usk; A. Wilde, Sheffield; E. Layton, Ashdon; M. A. Reeves, Bristol; M. A. Browning, Birmingham; S. A. Saville, Huddersfield; L. Larves, Salisbury; S. Bowden, Lyncombe and Widcombe; E. Martin, Exeter; S. A. Hubil, Sheffield; H. Smith, Marylebone; J. Winter, London; S. Stephens, Ipswich; S. Pugh, Southwark; E. A. Wilkins, Portsea; J. Young, Ticehurst; S. A. Broomfield, Newport; C. Slater, Bolton; M. A. Baker, London; M. A. Marsh, West Bromwich; E. Hull, Tamworth; C. Smith, Ingrow; E. Lawton, Salford; S. Sladen, Bristol; M. A. Phillips, Barnstaple; M. I. Schultye, Camden-town; S. L. Schultye, Camden-town; M. A. Stocks, Halifax; C. J. Eyles, Swindon; M. A. Ellis, Bradford; J. Woodhouse, Stockton-on-Tees; S. K. Jackson, Chelsea; H. Thorpe, Halifax; M. A. Macey, Bishop's Hull; M. A Glaister, Farnworth; H. Gumm, Piccadilly; F. Hallows, Sheffield; M. Hudson, Hartfield; C. Endey, Pool; M. A. Aspden, Salford; J. Webber, Blaenafton; A. Rider, Salford; S. A. Neale, Rampisham.

WEST KENT, CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

From the Second Annual Report of this Association we learn that there has been a gradual augmentation in the funds, and an addition to its members. The following papers have been read before the members; Fixing the Attention, Rewards and Punishments, Education and Instruction of Children, Necessity of a systematic course of Instruction, Method and Management, Attaching old Scholars to the Church, Moral Discipline, Teachers Duties and Responsibilities, Object Lessons, Singing, Visiting the Homes of Scholars, and Dictation. By the introduction of a new clause in the Rules, Schoolmistresses are now admitted to membership; the Committee "*therefore* congratulate such upon the prospect of better days." Judging from the list of papers read, we should conclude that the association is serving a good purpose. Some of these Papers must be worthy the attention of Teachers generally. How is it that Association Lectures so rarely appear? The subjects connected with School-keeping would lose nothing by a much freer intercommunication of notions among Teachers, than there has been hitherto.

TESTIMONIAL OF RESPECT TO MR. THOS. GRIFFITHS, AND MISS ELIZA JONES, MASTER AND MISTRESS OF THE MOSTYN NATIONAL SCHOOLS, HOLYWELL, FLINTSHIRE.—A Silver Tea Service, to each, by J. P. Eyton, Esq., and some of the inhabitants of Mostyn.

Correspondence.

SIR,—I hope the letter which appeared in a late number of your "Papers," accusing you of imperfectly representing the class for which you have so long shewn yourself deeply interested, has not rendered you less willing to be troubled with applications for instruction from those who fully appreciate the merits of your work, and still gladly follow it as a standard guide for the Schoolmaster.

With this introduction, I beg to refer you to a letter (Vol. II., page 224) inserted from your correspondent J. B. R., and to your remarks appended thereto. I have allowed some time to elapse before I addressed you in allusion to it, partly in the hope of seeing an abler advocate preclude the necessity of my interference, and partly because I felt my plan liable to some objection. In your remarks, just referred to, you recommend that the course of Notes of Lessons on secular subjects should not extend over a period of more than three months, and that on Scripture, double that period. Now, I am not going to utter a syllable antagonistic to your opinion, but I wish you had gone a little further, and have given us a *list* of subjects of which you consider a course ought to consist, to be best able to answer the object of oral teaching, and effecting "that well-established relationship between its several parts" which you deem such an essential point. It is comparatively easy for any teacher to prepare Notes of Lessons on two or three different subjects, but, not so, to shew a relationship between them. I may not comprehend what you mean, certainly: If so, pray enlighten me. I know that a prescribed course of lessons is open to the objection from some, that the selection of the subjects for instruction should be left to the teacher himself, which I do not deny, where the teacher is desirous and perfectly capable of exercising his own discretion; but, as it is better to err on the side of humanity than on that of presumption, it is my opinion that a prescribed course would be very acceptable to one half of the teachers of this country, who would likewise esteem it a great boon to have the advantage of a superior judgment in the preparation of that course. One of H. M. Inspectors has drawn up a Time-table as a guide to teachers in carrying their apprentices through their course of studies, according to which, also, the examination is conducted. I do not pretend to say that this is a *general* arrangement (I would that it were). I speak only of one Inspector's plan. Might not teachers be similarly assisted in regard to carrying on their schools, and might not the Examiners be persuaded to make use of the document in a similar way, and thus prevent the recurrence, in a great measure, of that complaint, so common among teachers, viz.: that the Inspectors do not limit their questions to the subjects with which the children are acquainted. And, in conclusion, would it not, if once prepared and adopted by the majority of teachers, tend to promote a conformity in the attainments of the children of different schools, which another of H. M. Inspectors in much desires to see [vide Minutes 1850-51]. It would, in my opinion, be an advantage so numberless ways, but I will say no more in its favour until I ascertain how the idea is received by you, or (if you kindly insert it) my fellow teachers.

J. B. S.

Sir,—I have hitherto been very timid in advancing puzzling questions that occasionally occur to my mind, or that are put to me by those whom I ought to be able to answer. But in the October number of your "Papers" I read a communication concerning the digestion of the horse, compared with that of the cow, and was very glad to find that an able correspondent (Nescius) replied to it most clearly and satisfactorily. This gave me courage. I have resolved to ask—in an unscientific manner, may be—something which a chemical correspondent will perhaps soon settle. It is a well-known fact that the carbonic acid gas which we exhale is inhaled by the leaves of plants, and forms woody fibre. On the other hand, it is well known that the oxygen which the leaves of plants exhale is by this beautiful provision inhaled by us. In winter, there are no leaves of plants to exhale oxygen: the oxygen concentrated within them changes their natural colour: they wither and are blown off. They then decompose, and instead of evolving oxygen, they, under certain circumstances, give forth malaria, or poison. Now, how does it happen that in winter, when there are no leaves on most trees, there is more oxygen in the atmosphere than in summer, when the trees are clothed in verdure. I have a presentiment that the condensation of the air by cold—and consequently the increase of oxygen—brings this wholly or partly about, but I am not sure. Would any of your correspondents kindly set me right in this matter—trivial and easy to them, undoubtedly, but perplexing to me, assuredly.

T. W.

Sir,—In answer to your correspondent A. C. K., who enquires for a tract on the "Value of Education," I beg to recommend one written by Ed. Baines, Esq., editor of the *Leeds Mercury*, who, although he differs from the generality of the members of the Church of England, as to the system to be adopted for the education of the poor, yet has the subject really at heart.

His tract may safely be recommended as it is written without reference to any party. It is also very cheap, only 1s. per hundred, I think.

With regard to a set of rules for a parochial school, your correspondent cannot do better than get from Groombridge's the sheet containing plain directions for children coming to school.

G. T.

Sir,—In answer to the enquiry of your correspondents A. C. K., in the last number for a *Set of Rules* for a Parochial Mixed School, I beg to send mine, in the absence of any better, as my school also includes the children specified.

N.B.—The payment of the children is not stated in the rules—they are as follows:—

Weekly—	Farmers	6d.
"	Artisans	4d.
"	Labourers	3d.

BISHOP-BURTON SCHOOL.

Patrons.—R. Watt, Esq., and the Rev. C. Robinson. Master.—G. Watson.

RULES.

1.—In order to be admitted into the School, the child must be at least 5 years old, and able to name most of the letters and figures.

2.—Scholars will be charged according to their attainments, the decision resting with the Master. Payments to be made either quarterly or weekly in advance, and if the money be not paid on or before the following Monday, the child will not be allowed to attend School until it is paid. Quarter days, first Monday in January, April, July, and October.

3.—A Scholar not absent from any cause more than one day during the quarter, will be admitted at two-thirds, and any not absent at all, at one-third the usual payment.

4.—The School hours are from Nine to Twelve in the forenoon; in the afternoon, from One to Four in Winter, from Half-past One to Half-past Four in Summer.

5.—Every Scholar must be ready to go orderly into the School at the appointed time.

6.—Any Scholar who is a quarter of an hour late, will not be admitted during the half day which he is late.

7.—No Scholar is allowed to be absent without leave; if sick, word must be sent to the Master.

8.—Any Scholar coming to School with dirty hands or face, or with untidy hair, will be sent home again.

9.—Any injury which may be done to Books, &c., by a child. must be made good by his parents or friends.

10.—Each Scholar shall in turn stay behind to sweep and dust the School.

11.—No complaint must be made to the Master in School hours.

12.—Every Scholar is expected to attend the Sunday School, unless leave is obtained to the contrary.

13.—No child will be admitted into the School, until his parents have consented to observe the above rules.

14.—The rules will be strictly enforced, and it is earnestly requested that parents will assist in forming those habits of regularity, neatness, and industry of their children, without which they cannot benefit by the School.

NOTICES OF BOOKS

The Art of Questioning.—W. T. Young, T.C.D.—Simpkin and Co.—The Author in this little tract analyses the varions methods of Interrogation with considerable success; offering at the same time many valuable hints respecting the construction of questions, and the proper mode of putting them. The subject of Interrogation ought to receive more attention than it does; were it so, we should less frequently hear slovenly questions put to children. Junior and Pupil-teachers connot fail to profit by a careful reading of the "Art of Questioning."

Euclids Elemente of Geometry.—Robt. Potts, M.A. Parker and Co.—This edition of Euclid's Elements is deservedly esteemed for its richness of annotatation, and perfection of arrangement. Without at all abating the strictness of the demonstrations, they are rendered clear and comparatively easy, by a careful analysis and an arrangement of the several elements in separate lines. The exercises from the Senate-house and College Examination Papers number some hundreds, and "Hints" for their solution are given. This edition of the First Six Books supplies the best apparatus we have for teaching Geometry, and is already most extensively adopted in colleges and public schools.

The British Controversialist, 1853.—*Houlston and Co.*—Of this work we have before spoken favorably. The completion of another half-yearly part brings it again to our notice, and with equal claims to our commendation. The leading articles on Rhetoric are equal in value to the cost of the book, and are such as intelligent Teachers will eagerly peruse; whilst the discussions, which give a peculiar character to this serial, will tend to give acuteness, and school up the mind to careful reasoning. We again recommend those of our readers, who seek for cheap and *profitable* reading to make acquaintance with this work.

Bible Class Magazine, 1853.—*Sunday School Union.*—One of a class of books whose wide circulation we earnestly desire. It is cheering to know, that whilst cheap literature of a debasing tendency is widely diffused, there is also a literature of a different kind; and which, though not so extensively patronized, does yet meet with encouraging support. This magazine is characterized by variety, cheerfulness, and adaptation for youth. "In it wil be found pleasant tales, illustrations, narratives, affectionate appeals, wise counsels, and pithy sayings—here and there a scrap of poetry, and now and then a little music." It is cheap and well worthy the attention of Teachers for distribution.

The Child's Own Magazine, 1853.—*Sunday School Union.*—A little book belonging to the same class as the preceding one, designed as its title indicates for mere children. It is simple and useful in its character, and deserving an extensive circulation among the lambs of the flock.

Text Book of Elementary Arithmetic.—Progressive Examples in Arithmetic.—Parts I. II. and III. Answers, with Solutions of the more difficult Questions, to the Examples in the Elementary Arithmetic.—J. W. Colenso, D.D., - Longman and Co.—We have here a complete set of text books, constructed for elementary schools and offered at a very trifling charge. The *Text Book* contains only exposition and principles, with a few examples worked out by way of illustration. The *Progressive Examples* contains a complete system of practical arithmetic. Part I.—Simple Arithmetic. Part II.—Compound Arithmetic. Part III.—Fractions and the higher Rules. The three contain nearly 3000 questions, most of them of a very bracing character. These parts are published separately at the cost of a few pence each. The *Answers* and *Solutions* contains the answers to the whole of the questions, with solutions, either suggestive or complete, of the more difficult. This is decidedly the most extensive and complete set of text books on arithmetic that we have, at a price within the reach of poor children. Cheapness in this case is not as it sometimes is, an indication of inferiority, but one of the signs of the times; and great credit is due to the respectable publishers for their bold venture, which we are sure will be a successful one. The construction of these books, the exposition, examples, and solutions are alike good, and cannot fail to give the highest satisfaction; we see but one objection—the answers to the questions being in a separate book. We know that the majority of Teachers, whilst they are quite alive to the force of the argument in favour of this plan, have yet found especially in large schools, the practical difficulty connected with it so great, as to prefer working with an inferior text-book in which the answers are attached to the examples. Notwithstanding this objection, we recommend elementary Teachers to procure at once the entire set, the effort is so new an so complete, that they cannot fail to be highly gratified.

Beauty and the Beast.—Miss Corner and Alfred Crowquill.—Dean and Co.—A successful effort, by a lady already well known to the juvenile public, to put into a dramatic form, one of our old nursery tales. This book is neatly got up, and the illustrations rather superior.

PARAPHRASE.

DESPONDENCY REBUKED BY FAME.

Alas! what boots it with incessant care
To tend the homely, slighted, shepherd's trade,
And strictly meditate the thankless Muse!
Fame is the spur which the clear spirit doth raise
(That last infirmity of noble minds)
To scorn delights, and live laborious days;
But the fair guerdon when we hope to find,
And think to burst out into sudden blaze,
Comes the blind Fury, with the abhorred shears,
And slits the thin-spun life. "But not the praise,"
Phœbus replied, and touched my trembling ears;
Fame is no plant that grows on mortal soil,
Nor in the glistering foil

Set off to the world, nor in broad rumour lies;
But lives and spreads aloft by those pure eyes,
And perfect witness of all-judging Jove.
As he pronounces lastly on each deed,
Of so much fame in heaven expect the meed.

MILTON.

Alas! what profit does it bring, to ply with constant toil the shepherd's lowly and despised occupation, and with laborious thought to pursue the art of poesy which obtains so little reward. The love of fame—that passion which, though a weakness, is one which clings the last to men of the noblest stamp—stimulates the mind, purified and detached from all other pursuits, to despise pleasure and spend toilsome days; but when we expect to obtain the reward which seemed so attractive, and imagine that our reputation will shine forth before the world, Death, indiscriminate in his assaults, comes in all his terrors, and snaps the frail thread of life. "And, yet," an inspiration, as if from the spirit of Poesy, breathed into my anxious ears, "Death cannot rob you of that praise which is your true reward." How real fame does not attain its full growth in this life, not does it consist in the brilliant show which attracts the world, nor in wide-spread notoriety: but endures for ever in a higher world, recognized by Him who sees and judges aright all that takes place in this mortal scene. Real fame must seek its reward in Heaven, and will be measured by the final decision which He passes on the actions of men.

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1853 *(MALES) CONTINUED.*

HIGHER MATHEMATICS.

Four Hours allowed for this Paper, with that on Algebra.

DIVISION I.

Excellence in these answers, if combined with high practical ability, will suffice for the highest class of Certificates.

SEC. 1.—1. Investigate an expression for the sum of a series in Geometrical Progression, having given the first term, the common ratio and the number of terms.

2. The sum of a series in Arithmetical Progression is $146\frac{1}{4}$; the last term, $15\frac{3}{4}$ and the common difference $\frac{3}{4}$. Find the first term.

3. Explain what is meant by a series of converging fractions; show that fractions formed according to the rule converge, and that their values are alternately greater and less than the value to which they converge. And find a series converging to $\frac{251}{764}$.

SEC. II.—1. Prove the rules for pointing off the decimals in a quotient; and for determining the value of a recurring decimal.

2. Define a common Logarithm and a hyperbolic Logarithm. Shew how,

from the Logarithms of two numbers the Logarithm of their product may be found.

3. Solve the equation $x^3 + ax + b = 0$.

Sec. III.—1. Prove one of the following formulæ of plane trigonometry :—

$$\left.\begin{array}{l}\text{Sin }(A + B) = \text{Sin A Cos B} + \text{Sin B Cos A};\\ \text{Sin A} = \text{Sin }(60^0 + A) - \text{Sin }(60^0 - A);\\ \text{Area of a plane triangle} = \\ \qquad \sqrt{S(S-a)(S-b)(S-c)}\end{array}\right\}$$

2. Having given two sides and the included angle of a plane triangle, shew how the third side may be found.

3. Shew how the position of a ship may be determined by observing from it the bearings of three objects on shore, whose positions are known.

Sec. IV.—1. Investigate general equations to a straight line and to a circle.

2. Investigate the equation to a parabola, from its vertex.

3. Investigate a formula for determining the quantity of earth in an embankment or cutting.

DIVISION II.

Candidates may select one or more questions from this section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

1. Shew by the method of indeterminate co-efficients

$$\frac{x+1}{x(x-2)} = \frac{3}{2(x-2)} - \frac{1}{2x}$$

2. Shew that the number of permutations of n things taken r together is represented by

$$n(n-1)(n-2) \ldots\ldots\ldots\ldots (n-r+1)$$

How many different permutations can be formed from the letters of the word *algebra* taken all together ?

3. Prove the binomial theorem. Find the middle term of the expansion $(a^{\frac{1}{8}} + b^{\frac{1}{8}})^8$.

4. Find all the positive integral solutions of the equation

$$13x + 16y = 97.$$

5. Show that in a spherical triangle

$$\text{Cos } c = \text{Cos } a \text{ Cos } b + \text{Sin } a \text{ Sin } b \text{ Cos C}.$$

6. Shew that in a spherical triangle

$$\text{Sin } \tfrac{1}{2}(A + B) = \frac{\text{Cos } \frac{1}{2} C}{\text{Cos } \frac{1}{2} c} \text{ Cos } \tfrac{1}{2}(a - b)$$

7. Standing on the paddle-box of a steamer, I observe the direction of a light to be across the *bows* of the steamer, and half an hour afterwards the *funnel* appears to pass over the light : the vessel is steaming on a straight course at 12 miles an hour, my position on the paddle-box is 50 feet from the bows and 20 feet from the funnel, and the funnel and bows are 45 feet from one another. How far off is the light at the time of each observation

DRAWING.

EXAMINATION PAPER No. I.—FREE-HAND DRAWING.

[On one half of this Paper was given a flower with stalk and leaves, to be drawn on a larger scale on the other half of the paper.]

Directions for the Students.—The student is required to copy in pencil on this paper the above figure, increasing the scale so that A B is enlarged to C D opposite. Precise imitation and clearness of outline *is* necessary. No instruments or means of measurement of any kind will be allowed.

EXAMINATION PAPER, No. 2.—OBJECT DRAWING.

[This was a blank sheet of *white* paper.]

Directions for the Students.—The student is required on this paper to make a drawing in pencil of some solid object, either one of Butler Williams' models, or of any other object that may be selected by Her Majesty's Inspector.

EXAMINATION PAPER, No. 3.—PRACTICAL GEOMETRY.

Direction to the Student.—The problems are to be worked on this paper. In all cases neatness and exactitude of execution are to be attended to, as well as the correct principles of construction; the lines by which the problem is worked to be shown. [For this paper a box of instruments was provided by H.M. Inspector, for those who did not bring one.]

Fig. 1. [Straight line given.] Besect the line A B by a perpendicular.

Fig. 2. [Straight line given.] Erect a perpendicular at the end A of the line A B.

Fig. 3. [Straight line, and point without, given.] Drop a perpendicular from the point C to meet the line A B.

Fig. 4. [Arc given.] Find the centre from which the arc A B is struck.

Fig. 5. [Circle given.] Find the centres and inscribe within the circle three equal circles touching it and each other.

Fig. 6. [Parallelogram divided into two equal parts given.] In the upper half of the parallelogram, ABCD inscribe a semi-ellipse by the method of intersecting lines;—in the lower half shew the method of finding the foci of a semi-ellipse inscribed in it.

Fig. 7. [Straight line given.] Describe a regular pentagon of which the line AB is one of the sides.

EXAMINATION PAPER, No 4.—PERSPECTIVE.

[In this paper were given three rectangular solids, with one side parallel to the base line, but at different distances from it.]

Directions to the Students.—The student is required to find and draw in, on this paper, the point of sight, the place of the spectator or station-point, the horizontal line, and the two vanishing-points for diagonals, the distance of the spectator being 15ft. by scale [given on the paper], and the height of the horizon 6ft. above the ground line. He is to draw with neatness and exactitude all the lines by which the problem has been worked, and write in the drawing the *true* dimensions of the cubical figures by scale, after having obtained them by working the problem, and also their several distances within the picture, as

Fig. 1. ft. from plane of picture.
Fig. 2. ft. " "
Fig. 3. ft. " "

HISTORY.

Three hours allowed for this paper.

Division I

Excellence in these answers, if combined with high practical ability, will suffice for the highest class of Certificates.

Sec. I.—State the principal events in the history of England during *one* of the following centuries:—

1. The eleventh century.
2. The fifteenth century.
3. The nineteenth century.

Sec. II.—Give some account of *one* of the following reigns, stating what you know of the manners and customs of different ranks of society at the period.

1. Henry III.
2. Edward VI.
3. George II.

Sec. III.—Relate the principal events in the history of *one* of the following periods:—

1. The civil war in the time of Charles I.
2. The war of independence in America.
3. The Peninsular War

Sec. IV.—1. What were the chief provisions of Magna Charta Mention instances in which they were violated.

2. What great constitutional questions were brought under discussion in the reign of Charles I.?

3. Give some particulars of the mechanical inventions and the manufactures which have contributed chiefly to the commercial progress of England during the present century.

Division II.

Candidates may select one or more questions from this Section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

1. Give some account of one of the following great men of antiquity:—

Alexander the Great.
Pericles.
Julius Cæsar.

2. What principal events occurred in Europe in the fifth century? and what in the ninth and fifteenth centuries?

3. Into what principal classes were the Anglo-Saxons divided? Give some account of their institutions.

4. Give some account of the rise and progress of the representative system in England.

5. Under what different circumstances have taxes been levied in England by the Sovereign alone? How did the control of Parliament over the taxation of the country grow up?

6. Give some account of one of the following English statesmen—The Earl of Chatham, Pitt, Burke, Canning.

7. Contrast the reigns of King Stephen and Queen Victoria.

8. Contrast the first half of the seventeenth and the first half of the nineteenth centuries of English History.

EUCLID.

Three hours allowed for this Paper.

Division I.

Excellence in these answers, if combined with high practical ability, will suffice for the highest class of Certificates.

Sec. I.—1. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise their bases equal; the angle which is contained by the two sides of the one shall be equal to the angle contained by the two sides, equal to them, of the other.

2. If a straight line, falling on two other straight lines, make the alternate angles equal to each other; these two straight lines shall be parallel.

3. To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given rectilineal angle.

Sec. II.—1 If a straight line be divided into two equal parts, and also into two unequal parts; the rectangle contained by the unequal parts, together with the square of the line between the points of section, is equal to the square of half the line.

2. If a straight line be divided into two equal, and also into two unequal parts; the squares of the two unequal parts are together double of the square of half the line, and of the square of the line between the points of section.

3. To describe a square that shall be equal to a given rectilineal figure.

Sec. III.—1. If, in a circle, two straight lines cut one another, which do not both pass through the centre, they do not bisect one another.

2. To draw a straight line from a given point, either without or in the circumference, which shall touch a given circle.

3. Upon a given straight line to describe a segment of a circle which shall contain an angle equal to a given rectilineal angle.

MENSURATION.

Sec. IV.—1. The cost of timber being £3 15s. 0d. per load (50 cubic feet), the price of sawing 4s. per square (100 superficial feet), and the price of laying (including nails) 4s. 6d. per square; required the cost of flooring a room 26 feet by 18 with boards one inch and a half thick.

2. What is the cost of digging a trench 4 feet deep, 6 feet wide at the bottom 8 feet at the top, and 50 feet long; and of wheeling all the material to one end of the trench. The price of digging is 5d. per cubic yard, and the price of wheeling 2d. per run of 20 yards.

3. What is the weight of a ring of cast iron whose section is a circle, and

whose greater diameter is 18 inches, and its less, 12 inches; the weight of the iron being 445 lbs. per cubic foot?

SEC. V.—1. Give an example of a field book used in land measuring, and calculate the area of the corresponding field.

2. Describe the instruments used in levelling and the method of adjusting and using them.

3. Give an example of a field book used in levelling and calculate the corresponding levels.

DIVISION II.

Candidates may select one or more questions from this Section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

1. The diameter is the greatest straight line in a circle; and of all others, that which is nearer to the centre is always greater than that more remote.

2. To describe an equilateral and equiangular pentagon in a given circle.

3. If four straight lines be proportionals, the rectangle contained by the extremees is equal to the rectangle contained by the means, and conversely.

4. The difference between any two sides of a triangle is less than the third side.

5. To divide a straight line into two such parts that the rectangle contained by them may equal the square of their difference.

6. Of all triangles on the same base having equal perimeters, the equilateral triangle, has the greatest area.

7. Prove Thomas Simpson's rule for measuring a curvilinear area, and apply it to an example.

GEOGRAPHY AND POPULAR ASTRONOMY.

Three hours allowed for this paper.

DIVISION I.

Excellence in these papers, if combined with high practical ability, will suffice for the highest class of Certificates.

SEC. 1.—Mention in succession, or draw a map to show, the principal headlands, bays, rivers, and seaports, on one of the following coast-lines:—

1. The Western Coast of England.
2. The Eastern Coast of Ireland.
3. The Coast of Europe, from the Elbe to the Straits of Gibraltar.

SEC. II.—Give some account of one of the following countries.—

1. Sweden.
2. The United States of America.
3. The British possessions in India.

SEC. III.—How is it known that the fixed stars are greatly more distant from us than the sun?

2. Explain the different lengths of day and night in England, at different seasons of the year?

3. Explain the causes of the apparent retrograde motions of the planets. Why does the moon present always the same face to us?

Sec. IV.—Draw a map, showing the mountain systems and river basins of of one of the following countries; mark the principal towns on the rivers, and trace if you can, the river basins:—

1. England south of the Wash.
2. France.
3. Central Asia,

Division II.

Candidates may select one or more questions from this Section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

1. If there were no land on the earth's surface, the currents of the air and ocean would always have an easterly direction near the equator, and a westerly direction towards the poles. Why is this?

2. Account for the heavy falls of rain in Cumberland and Westmoreland, on the Coast of Norway, and on the eastern slope of the Andes.

3. The mean annual temperature of Quebec in latitude 47° N. is nearly the same as that of Trondjem, on the Coast of Norway, in latitude 63° N. The mean winter temperature of Pekin (in a latitude south of Naples) is 11° lower than that of Paris; the temperature of the northern is much less equable than that of the southern hemisphere. Account for these facts.

4. Explain, fully, a method of finding the latitude by observation.

5. How do the the great continents differ in respect to the extension of their coast line; and how does this difference affect their civilization?

6. Give some account of the table-lands of Asia, and of their influence on climate and vegitation.

7. In what principal respects does the New contrast with the Old World?

8. Give some general account of the Ethnological distribution of mankind over the several parts of the Globe.

MUSIC.

Three Hours allowed for this Paper.

Division I.

Sect. I.—Explain and illustrate, with a diagram, *staves*, *ledger lines*, and *clefs*, on the understanding that the clef signatures are never really moved, but remain each on the same line relatively and absolutely indicating the same note or pitch.

Sect. II.—1. Name the three cadences in Music, and show wherein the *plagal* differs from the *imperfect* cadence.

2. Write the common chord with its positions and inversions.

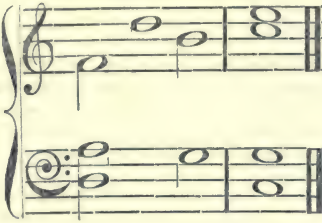
3. First make the signature, then write the chord of the tonic and the attendant harmonies to the following keys:—G. A. E♭. B. A♭. C♯.

Sect. III.—1. What is the *Root* of the second of the scale when it is marked with a ♭

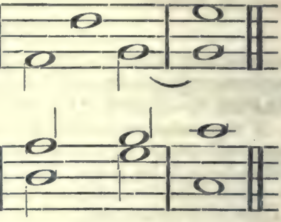
2. What is meant by *the Dominant Seventh*, and why is it called the *Dominant?*

3. Is there any thing objectionable in the arrangement of chord No. 3, and which arrangement, No. 1 or No. 2, is to be preferred, and for what reasons?

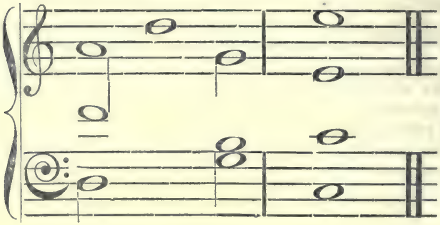
No. 1.



No. 2.



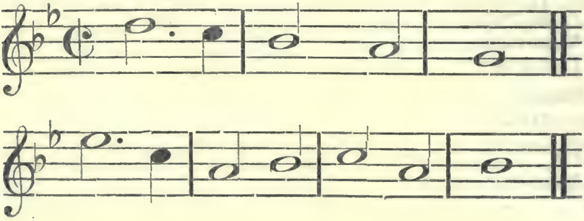
No. 3.



DIVISION II.

Candidates may select one or more questions, from this Section, and will receive marks according to the merit of the answers, but no answers to this part of the paper will be read if the answers to the first part be unsatisfactory.

Harmonize the following passage:—

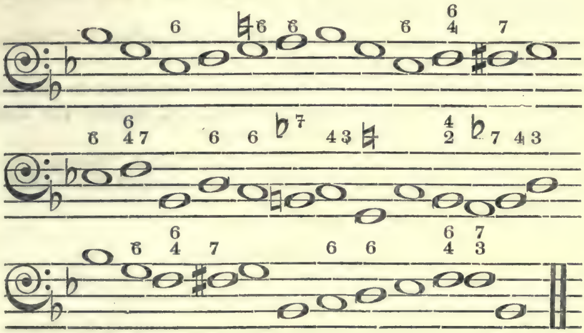


What is the full figuring of the chord marked 2?

Write chords of the dominant $\frac{9}{7}$ in the keys of C major and C minor.

When are consecutive fifths allowed, and on what principle is the interdiction of consecutive perfect fifths and octaves founded?

Write out the following exercise:—



PHYSICAL SCIENCE.

Three hours allowed for this paper.

DIVISION I.

Sec. I.—Describe and explain one of the following instruments:—

1. A Thermometer.
2. A Galvanic Battery; and an Electro-Magnet.
3. A Telescope.

Sec. II.—Describe and explain one of the following machines:—

1. A Pump.
2. A Clock.
3. A Condensing Steam Engine.

Sec. III.—1. How many iron wires, one-tenth of an inch in diameter, are required to sustain ten tons weight, the tenacity of the iron being 25 tons per square inch?

2. How long would an engine, working at 20-horse power, be in pumping dry a reservoir of water whose surface measures half a square mile, and whose depth averages 6 feet?

3. The area of the piston of a steam engine is 5000 square inches, the length of the stroke is 9 feet, the steam is admitted at an effective pressure of 30 lbs. per square inch, and cut off at one-third the stroke; at what horse power is the engine working when it makes 10 strokes per minute?

SEC. IV.—1. If heat be applied at the top of a long tube full of water, the water will heat very slowly; but if the heat be applied at the bottom, it will be heated quickly: account for this, and describe some one of the useful applications of the principle it illustrates. Give illustrations of the currents caused by the heating of liquids.

2. Why does ice form on the surface and not on the bottom of a pond? Why does frost crumble rocks and break up the ground? How may water be frozen in an air pump, and on what principle?

3. Give examples of the absorption of heat in the liquefaction of bodies, and of its being set free in their solidification.

SEC. V.—1. Describe and explain the pneumatic trough and the gas holder.

2. Describe a method of obtaining hydrogen, and explain the chemical changes which take place in the act of obtaining it.

3. Explain fully what is meant by a chemical equivalent. Give the chemical equivalents of oxygen, nitrogen, and sulphur, and interpret the symbols HO, HO_2, SO_3, NO, NO_2, NO_3, NO_4, NO_5, CaO, CO_2.

QUESTIONS IN FARMING.

1. Write out a Farmer's Calendar from June to December.

2. Describe the making of cheese, and explain the action of the rennet.

3. On what principle does the use of manures depend? What saline and mineral manures are used in farming, under what circumstances respectively, and why? Give some general account of the way in which soils are analyzed.

DIVISION II.

1. Show how the force required to cause a body to slip up or down an inclined plane, subject to friction, may be determined; by construction or computation.

2. Determine the space described in a given time by a body falling freely under the action of gravity.

3. Show that the work which a body of a given weight, moving freely with a given velocity, is capable of yielding, is represented by half its *vis viva*. A cannon ball whose weight is w lbs. impinges on a sand bank with a velocity of v feet per second, and enters it a feet; what is the *mean* resistance opposed to it by the bank, in lbs.?

4. Describe the chemical changes which take place when equal weights of oil of vitriol and common salt are mingled in a flask and heat applied.

5. Describe the preparation of nitric acid, and explain, by means of a diagram, the chemical changes which take place.

6. Describe the preparation of sulphuric acid of commerce in England; explain the chemical changes which take place in the act of preparing it, and give some account of its properties.

7. Give some account of the structure of flame. Explain the action of wire gauze upon flame; and describe fully and explain Davy's Safety Lamp.

Papers

FOR

The Schoolmaster.

VOL. IV.—1854.

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INDEX TO VOL. IV.

PAGE
A Good Attendance, M. U. R. 506
Analysis of Sentences No. 1 J. R....... 473
Do. No. 2 497
Do. No. 3 523
Ashburton Prizes, The Questions at the Examination for 390

Bell, Rev. Dr., and the Madras System No. 1 R.......... 423
Do. No. 2 R.......... 450

Certificates of Merit, C. H.B. 335, 543
Certificates, Class Lists of 310
Children's Questions 397
Christian Philanthropy, The Claims of Labour upon, C. H. B. 372
Class Instruction, No. 1 297
Do. No. 2....................477, 500
Collective Teaching 329
Common Things, Teaching of 367
Correspondence, 319, 342, 360, 389, 415, 440, 491, 511, 540, 564, 581.

Decimal Coinage, S. A. G.................. 299
Do. C. H. B. No. 1 449
Do. No. 2 475
Do. No. 3 521
Do. No. 4 545
Drawing, Elementary........................ 434
Duties of the Schoolmaster, Thoughts upon the, D.......................354, 399, 453

Educational Intelligence, 307, 338, 357, 383, 405, 428, 461, 483, 505, 532, 562, 578
Educational Exhibition, The, C. H. B., R., ...385, 396, 409, 421
Education, Claims of Language in No. 1. 321
Q. E. D. No. 2. 347
Education among Ojibway Indians...... 408
Education in the City of New York ... 408
Education, A new want in, M. U. R.... 445
Education, Instruments of, C. H. B. ... 570
Examination Papers of a Normal College 369
Examination Questions for Certificates of Merit—Christmas, 1853 ......317, 345
Do. Do. 1854 ......548, 584
Examination Papers for Registration.. 416, 441
Extracts 344, 513

Geography, Mathematical, H. R. No. 1. 301
Do. do. No. 2. 324
Do. do. No. 3. 374

Heartwork, Headwork, and Handiwork, M. U. R........................... 469

PAGE
Introduction to Vol. IV., C. H. B. 295

Lessons, and Notes of Lessons—
The Fish 333
A Sucker 335
Structure of Birds 380
First Principles of Music 380
Diving Bell.......................... 403
Cat 404
Hare.................................... 427
Frog 458
Palm Tree 482
The Lizard.......................... 482
Silk 527
Ancient pens 573

Music—
Buttercups and Daisies 336
God Teaches 362
Hurrah for England 382
The Children's Friend 460
Advent................................ 528
Christmas 530
Christian Children 560
Modern Methods not always New Methods. R. 350

Notes of Lessons (Vide Lessons)
Notices of Books, 314, 345, 364, 387, 413, 439 459, 490, 509, 538, 563, 579.

Penmanship, Lord Palmerston on 409
Philosophy of Common Things—
No. 1. Animal Food. C. H. B. 326
No. 2. do 377

Queen's Scholars, List of—Christmas, 1854 575
Queen's Scholarships, Examination of Candidates for 553

Reading Lesson................................ 457

Schoolmaster, The 506
Schoolmaster, Office of the 441
Scripture Lessons—
Prov. xvii. 14. 304
1 Sam. xxiv. 4. 333
Luke xiii.6—9 379
Luke vii. 11—15 402
Luke vii. 36—50.................... 426
Prov. xxv. 11........................ 457
Rom. v. 3 481
Psalm xl. 2 526
Specimen Notes for a Collective Lesson —The Elephant.......................... 332

Ventilation, Educational importance of 508

Wanted at Home. M. U. R. 494

PAPERS FOR THE SCHOOLMASTER.

No. 37. MARCH 1, 1854.

Introduction.

The fourth year of our Editorial life has now dawned upon us. We have continued to put forth new life longer than we anticipated. We did not, indeed, ever contemplate an ephemeral existence—but at the moment we came to life, we imagined that, attaining to an early maturity, we should assume the shape of a permanent volume, (our ambition scarcely looked beyond a second,) and so perform our mission, as an every day oracle, speaking from the shelves of the Schoolmaster's library. But the hand of the public has shaped us to its own will, and has bid us continue to give expression to flitting thought and suggestion. We obey the bidding of a numerous body of thoughtful readers, to whose fickle appetite we have never sought to cater, but to whose wholesome cravings it has been, and will be to the end, our simple pleasure to minister.

And so we complete our third volume, and commence a fourth under the consciousness that our labours have met with their recognition and reward. Many changes have occurred since those labours began. Men begin to value education as a birth-right, inherent in the spirit of Christianity, the inalienable privilege not of a class, but of universal childhood. Jealousies have yielded something to experience and good sense, and the legislature have awakened to the fact, that our commercial, as well as social well-being, demands that industry and handicraft must be vivified with intelligence. If the day has come when science requires that a nation's trust must henceforth be reposed by men in power, no longer in muscular exercise, and mere animal force, but in the economising of what is physical in man, under the direction of what is intelligent—if late discoveries have equalised natural advantages in regard to a nation's powers of production, so that an educated people, with less of them, will beat in the world's market an uneducated one who may have more of them; then the elementary school will become an object of high interest to the State, and the office of the Elementary Schoolmaster must rise in importance.

During the past year those charged with the executive in the conduct of National Education have made certain alterations, the tendency of which is not so much to discourage scholastic industry, as to attach an increased importance to professional skill in the teaching, organization, and discipline of a school. There is also a growing disposition to lay small stress upon abstract subjects in elementary schools, and greater upon the principles of industrial science. It may have fallen to the notice of our readers, that prizes have been offered to certain districts, with the view of encouraging the study, and the teaching, of common things. Lord Ashburton's address to the Students at Winchester is well worthy of perusal for its wise and manly sentiments.

Two letters found in our correspondence of this month, evince a growing interest in this department of study; while the ability with which they are written, not only speak well for the intelligence of our readers, but show to us that the object of such communications, intended for mutual information, needs not be limited to the shape of blackboards, the arrangement of desks, or other accidents of school-keeping. A benevolent Lady has proposed to the Principal of the Normal College at Cheltenham, to offer to the Students and Masters trained there, prizes similar to those instituted by Lord Ashburton.

We have been informed, also, that it is in contemplation to establish Exhibitions in connection with the department of Art, which has its seat at Marlborough House, with the object of maintaining two or three Students annually, whose term of residence at a Normal College has expired. They will be admitted gratuitously to the lectures on experimental philosophy, and to the daily working of the chemical laboratory, and so become prepared to act as Masters of a superior primary, or Lecturers in a secondary, school.

We commence our new year's labours with the infusion of fresh vigor. The article on Mathematical Geography, proceeds from the pen of a writer, whose name and service are known in the Education world, and one of whose works is the subject of this month's review. Another contribution has been received from an able hand, in the shape of a star-map, an original conception, whose execution is intended to illustrate a series of lessons upon the sidereal heavens. Its late arrival precludes its admission, at least, into the present number.

Class Instruction.

No. I.

The term class is employed by some educational writers, to designate one of the divisions into which a school is thrown for the better distribution of the subjects of instruction, and of direct teaching throughout it. By others, it is applied to any group of children, irrespective of numbers or attainments, put together for a common purpose. In a few occasional remarks on methods of "Class Instruction," which we propose to offer our readers, we shall use the word class to describe all the children of a school who are at the same stage in any given subject of instruction. A class in "proportion," for instance, would include all who were abreast of each other in arithmetic, that were able to receive the instruction offered, and to enter into competition in it on equal terms.

This use of the term class, opens out to us the purpose and value of "Class Instruction." Its aim is to bring the matter and methods of study down to the capacity of each child, that system of instruction being most educative which best cultivates the powers of each individual mind. This is most likely to be accomplished where the teacher can most thoroughly acquaint himself with the character, ability, and progress of each of his pupils, where he can adopt his matter and methods to their individual wants, and where he can promote that healthy emulation which arises when persons are in pursuit of a common object with equal prospects of success. The "Class" presents the opportunity of accomplishing these things. It groups the children according to mental capacity, and common attainment; it enables the teacher to task their powers equally, and to the utmost on appropriate subjects, and it secures individual teaching, application and progress.

The size of a class in any given school, as well as the number of classes, must be determined primarily by the proportion of teachers to children, partly by their ages and attainments, and partly by the number, and graduation of the subjects of instruction. In schools of the average run of ages, where there is a Teacher to every forty children, the subjects of instruction should be so graduated as to permit of classes being formed containing twenty children; a number which it is not desirable to exceed.

In schools under inspection, the class-instruction should devolve principally on the Pupil-Teacher who has charge of the section to which the class belongs. When thus engaged with one class, the other children belonging to his section, should be working in "drafts" under monitors, preparing lessons for subsequent examination in the class.

The subjects most suitable for Class-Instruction in Elementary schools are, Scripture Narrative, Biography and History; Reading, Spelling and Grammar; Principles of Arithmetic and Measurement; and Map-Geography. On each of these subjects a distinct portion should be marked on the "scheme" of instruction, as the work of a particular class, so that progress from class to class, would secure instruction of an advanced character and increased difficulty.

As the chief work of every good school is in the classes and desks; to these must be allotted the greatest amount of time. No rule can be fixed as to this amount, but as Gallery Lessons should only be supplementary to the other instruction, it seems desirable, that at least three-fourths of the school time should be devoted to the work of the classes and drafts, and the remainder to Gallery-Lessons.

The efficiency of Class-Instruction depends on the Teacher securing what the late Mr. Fletcher calls, a thorough collectiveness of attention and mental effort from every child. For this, he must depend mainly on the adaptation of his matter to the children's capacities, and on his own skill. But he will greatly aid this result by a few mechanical devices.

The first is, that of irregular questioning, instead of invariably calling on each child in turn, questions should be put to the entire class, and the one who is to make the reply, rapidly indicated. A question put at the right moment, when the eye tells that the attention is flagging or the effort subsiding, will prove a spur to effort and prevent napping.

Another device is, that of mutual correction. The Teacher should not correct a mistake, until by appealing to every one in the class he finds that no other can. Without this, the instruction becomes purely individual to each child in succession, while all the others are either in a state of mental indolence, or are venting their restless energies in noise or mischief.

In connection with mutual correction, there might be employed with advantage, a moderate system of place-taking. The one who corrects to advance one place.

In all Class-Instruction the answers should be individual and full, as simultaneous and half answers are a hinderance to mental effort and progress.

Decimal Notation of Money, &c.

To judge from a recent circular addressed to Her Majesty's Inspectors of Schools by the Committee of Council on Education, it is more than probable that the Government contemplate a fundamental change in our money notation at no very distant period. A few observations on this subject may therefore not be unacceptable to the readers of this publication.

All that is necessary to illustrate the *principle* of the proposed change, is simply to set before the eye of the reader the common notation table, merely adding the words coin, weight, length, surface, solid, &c. Thus:—

1	unit of coin, weight, length, surface, solid, &c.
10	ten coins, weights, lengths, surfaces, &c.
100	a hundred coins, weights, &c.
1,000	a thousand coins, weights, &c.
10,000	ten thousand coins, weights, &c.
100,000	a hundred thousand coins, &c.
1,000,000	a million coins, &c.
10,000,000	ten million coins, &c.
100,000,000	a hundred million coins, &c.

Now, instead of *various* units of coin, weight, measure, &c., respectively, it is obvious how great an advantage it would be in keeping accounts, to have but *one* of each, to correspond exactly with the foregoing table. Instead, for instance, of requiring not less than *three* money columns of our books, one for pounds, one for shillings, and one for pence, we need only *one*, if we express ourselves in terms of the lowest current unit. We thus avoid the troublesome reductions and host of tables which the present system renders necessary in all our calculations.

By a very simple plan our present coinage admits of being adapted to an improved notation, namely, by regarding the thousandth part of twenty shillings as the elementary unit of coin, to be briefly termed *a coin*, which would weigh of silver $1\frac{3}{4}$ grains almost exactly, and might be represented by a copper token 40 times its weight, or 70 grains; and since the current farthing, which when new weighs $72\frac{11}{12}$ grains, after a little wear is no heavier than the proposed token, the present copper coinage need not be withdrawn at all from circulation, and the slight depreciation in its value, as compared with the silver money, would be scarcely felt in requiring 50 farthings or $12\frac{1}{2}$ pence in change for a shilling to adapt it to the new system. Any loss to the Government is out of the question, since they coin

24 pence from an avoirdupois pound of copper, which costs them less than a shilling.

And here a remarkable analogy may be mentioned. It is found that a cubic foot of rain water weighs 1,000 ounces avoirdupois; the tenth of a foot cubed will therefore weigh one ounce, of which the 250th part, namely, $1\frac{3}{4}$ grains, might be made the elementary unit of weight in commerce, which exactly corresponds to our proposed silver unit of coin. Five shillings, or rather 250 silver coins, would thus weigh an ounce avoirdupois, and serve as a link connecting the new system with the old.

Pieces of money, no matter what may be their popular names—whether penny, shilling, crown, &c., should be legally designated only by the number of *coins* they represent, as 4-coin piece, 50-coin piece, 250-coin piece, and so on. New issues from the mint should be stamped accordingly. The words pound, shilling, and penny will doubtless long remain in popular use, like gross, dozen, score, &c. in abstract numbers, but in accounts should be written 1,000, 50, and 4 coins respectively. We may still speak of 100 pounds a-year, which would sound better to English ears than a hundred thousand coins. As for the names, *mil*, *cent*, &c., proposed in some quarters, they are as unnecessary as they are un-English. It is scarcely within the province of Her Majesty's mint to coin *words*. Silver 10-coin and 20-coin pieces might be issued with advantage, and the threepenny and fourpenny pieces called in. The following table will exhibit the adaptation of the old system to the new:—

	COINS.		£	s.	d.	WEIGHTS.		OZ. AVOIR.
Copper . .	1	=	0	0	$0\frac{1}{4}$	40	=	$\frac{4}{25}$
” . . .	2	=	0	0	$0\frac{1}{2}$	80	=	$\frac{8}{25}$
” . . .	4	=	0	0	1	160	=	$\frac{16}{25}$
Silver . .	10	=	0	0	$2\frac{1}{2}$	10	=	$\frac{1}{25}$
” . . .	20	=	0	0	5	20	=	$\frac{2}{25}$
” . . .	25	=	0	0	$6\frac{1}{4}$	25	=	$\frac{1}{10}$
” . . .	50	=	0	1	0	50	=	$\frac{1}{5}$
” . . .	100	=	0	2	0	100	=	$\frac{2}{5}$
” . . .	125	=	0	2	$6\frac{1}{4}$	125	=	$\frac{1}{2}$
” . . .	250	=	0	5	0	250	=	1
Gold . . .	500	=	0	10	0			
” . . .	1000	=	1	0	0			

To change old accounts into new, multiply the shillings by 50 and the pence by 4, to reduce them to coins; thus, £89 5s. $9\frac{3}{4}$d. is equivalent to 89,473 coins, which may be read 89 pounds 473 coins.

S. A. G.

Mathematical Geography.

This subject is one of the most generally useful with which a teacher can occupy his pupils. It is useful simply for the information it supplies, useful in the precision of expression required in its definitions, and useful for the mental exercise involved in a clear apprehension of its definitions and propositions, and in the observation and reasoning it excites. It forms an admirable preparation for the study of astronomy, and incentive to that study; and, if properly taught, gives great additional interest to ordinary and to physical geography, and assists in fixing in the mind the positions and certain important features of numbers of leading places on the earth's surface—points which every one should know, and likes to know. We propose, therefore, to devote a few pages to some remarks on the mode of teaching this important part of geographical science—principally in reference to common schools, the middle and upper forms in which are quite capable of understanding and enjoying it, if developed in a way addressed to their capacities and the limited time they have to spend on their education. We think that too little attention is paid to this subject in such schools; that it is not only more necessary and more interesting than physical geography, but that, being more definite in its character, it is better adapted for the instruction and intellectual training of the class to which we refer.

By Mathematical or Astronomical Geography we mean the general subject of the form, magnitude, and movements of the earth, the positions of its parts as regards these motions and the heavenly bodies, particularly the sun, the phenomena arising from these positions and movements, the various imaginary lines and divisions which we make to assist in defining these relations, and in laying down the exact positions of places, and the methods of representing the earth's surface accurately on globes and maps.

Although a globe is often very useful in teaching Mathematical Geography, it is not absolutely essential, and considerable progress may be made with only a map of the world in hemispheres. Indeed, for some purposes the latter is more convenient than a globe; while, as so few can possess a globe, and the poorest has or may have maps at hand, it is of great importance to teach every one to know all that the map may be made to tell—and that is not a little.

Many preliminary definitions are not advisable nor necessary. It is enough at first to make the learners familiar with the nature of *a circle, a sphere, a diameter of a circle, a diameter of a sphere, rotation,* and a *great circle* of a sphere; the latter being defined as "a circle on a sphere dividing its surface into two equal parts, called *hemispheres*." This definition is sufficient; the other ("a circle whose plane passes through the centre") is too intricate. The teacher must then inform them that the world is round, like a sphere or ball, which they must take upon his word at present; and that the map is a picture or representation of it. Cutting an apple in two, placing the pieces side by side, and turning the convex surfaces to the class, will, with a little explanation, be sufficient exposition at this stage of the representation of the earth's surface by the two adjoining circular maps. In dealing with this part of the subject it must be shewn that, on looking at a sphere, we can see only half of it at once. These preliminaries being gone over, the next step is to explain that the world is in constant rotation, making one complete turn every 24 hours, and to lead them thence to the nature of the *axis*, which may be defined as *the diameter about which the earth rotates*. This is the only troublesome part of the teacher's work, and much explanation and illustration will be necessary to make the axis understood. Tops spinning, and especially when sleeping whilst turning, a coin made to spin round rapidly, a circular piece of paper with a diameter drawn, and made to revolve round it, will assist. It is unnecessary to dwell upon this: we have only to caution the young teacher not to point out the straight meridians (70° E. and 110° W.) as the axis (sad confusion is produced in the learner's mind from a line on the surface being pointed out as the axis); and, if he uses a wire through an apple, or thread through a paper, as an illustration of the earth's axis, to take care that some of his younger pupils do not suppose that there really is some such axis distinct from the earth's substance, which remains fixed, on which the earth is stuck, and around which it turns in a similar manner.

The axis of rotation being explained, the rest follows easily, being deduced from it by clear and simple steps. The *poles* are defined with precision as the ends of the axis; the *north pole* as the pole nearest to Europe; and the *equator* as a great circle round the earth, equidistant from both poles The northern and southern hemispheres are then easily defined; and this is enough of definitions for a little. But it should be explained that the equator is really a *circle*, though it appears as a straight line on the map; that this is an error unavoidable in representing the round world on a flat surface, and that it is a circle on a globe.

Having thus defined the position of the equator, the teacher should next tell what is interesting about it; its length (24,897 miles); that day and night are *always* equal there, the sun rising at six and setting at six; that the twilight is very short, so that it is dark almost immediately after the sun has set; that the temperature there is nearly the same at all seasons; that that temperature is very high, 81° or 82° fahr. (which can be explained by reference to our hot summer days); that the animals and plants there differ very much from those in Europe; that the sun is overhead there on March 20 and on September 23 every year; that at the equator the sun is never very far from being over-head at noon at any time of the year; that the pole star is in the horizon; the Great Bear near the horizon or below it and out of view; that the whole of the stars of the heavens may be seen there in one night, one half just after sunset, the other half just after sunrise; and we must not forget the alarms of the old navigators about the *burning line*, nor the ceremonies and tricks that Father Neptune practises on those who are crossing it for the first time.

These—expatiated upon and illustrated, and particularly contrasted with our own condition in respect to the different points—will excite great interest, and lead to numerous useful colloquies between teacher and pupil, and, what is of great importance, will suggest observation and thought on a variety of every day occurrences that are neglected because we are familiar with them.

The equator should then be connected in the pupils' mind with ordinary and physical Geography, by pointing out, and making them point out the leading places it passes through or near. In doing so, it is well to go from W. to E. as the world rotates, and to begin at some notable point, as where the equator crosses the *first meridian*, which might now be pointed out; particulars as to its nature being deferred. The course of the equator would thus include the following places; it meets the first meridian in the Atlantic Ocean, just S. of the Gulf of Guinea; enters Africa a little N. of Cape Lopes; crosses Africa; enters the Indian Ocean; passes a little S. of the Maldive Islands; through Sumatria; a little S. of the British settlement of Singapore; through Borneo and Celebes; a little N. of New Guinea; through the Pacific Ocean; through the Galapagor Islands; enters S. America in Equador; passes just N. of Quito; crosses New Guinada; crosses Brazil, and leaves that country and S America and enters the Atlantic Ocean at the mouth of the river Amazon.

If the learners are often made to point out the course of the equator in this manner, or to watch others doing it, and sometimes to describe it from memory—not seeing the map—we fix in their minds important facts as to the positions of these places as regards the equator and each other, and their relations to the earth's rotation, to the solar influence, to the stars, while the interest is excited by the striking contrast thus presented between the phenomena of the equator and those of our own latitude. In whatever way, or at whatever time the teacher may think fit to introduce such matter, we consider that geographical instruction must be viewed as very incomplete which does not include the characters of the equator and the other notable circles, and the leading places through or near which they pass.

It is by no means proposed that, in every case, the preceding method of developing the subject should be pursued. It is only suggested as one that may be suitable in many schools, where the pupils have little time for study, are fatigued and repelled by numerous preliminary definitions, cannot follow many abstract reasonings, and long for something tangible, for some bit of real knowledge that would interest them and fill their minds. Students of older standing might go through the subject systematically, learning all the leading definitions at the begining. For others, it would be well to explain and prove everything as we go along; as, that the earth is round. This, which might appear to be one of the first things to be shown, involves much more thought and reasoning than what is here given as the first lesson, and it is well to introduce the proofs of this point somewhat later. With great numbers it appears advisable to introduce the subject of mathematical geography in some such manner as is here suggested; giving no more definitions than those absolutely required for each lesson, proceeding as early as possible to some interesting notable facts that will strike the fancy, and remain upon the memory;—which, as simple facts, will easily be learned, but at the same time will be associated with other facts in the mind of the learner, tend to develope thought and observation, and supply him with some real knowledge should he go no farther.

(To be Continued.)

Notes of Lessons.

SKETCH OF A SCRIPTURE EMBLEM LESSON.

PROVERBS. xvii. 14.

"*The beginning of strife is as when one letteth out water; therefore leave off contention before it be meddled with.*"

I. THE FIGURE.
II. THE MEANING.
III. THE APPLICATION.

1. THE FIGURE.

(a.) Who has seen a piece of water in motion? What is its name? *The Thames.* Tell us what you saw on it? *Boats, ships, packets.* What moves them along? *Steam, winds, oars.* Yes; but some were moved along——*By the water.* The water, then moves,——*with great force.* Who could stop it? Still less able to do so near the sea. Where does the river rise? How do you think it appears there? *Narrow-*

shallow, has little power. There you might easily control it or turn it aside.

(b.) There is a noted river in North America, which falls down a precipice with great force, what is it called; *Niagara.* For some time it flows on peacefully and quietly, then it begins to move more quickly; why? It goes on moving quicker and quicker; at length it comes to a precipice; what happens to it then? *It tumbles down with very great force and noise.* Suppose any one tried to stop or turn it? *He would be carried away, and dashed to pieces.* Yes, it carries down boats, ships, anything that comes in its way (*tell anecdote of persons carried away by it.*)

(c.) Allude to the tragedy of Holmfirth; repeat the circumstance. Before the water burst out, the reservoirs could easily be made to keep it in; but they were neglected. In the dead of the night the water bursts out; it rushes on, carries away houses, men, women, and children, trees, everything in its way. Destroys much property, and many lives; but all this might have been easily hindered by keeping the water in its basin.

(d.) What country is it that the sea is kept from overflowing by means of dykes or banks? *Holland.* Sometimes these dykes give way; sea rushes over the land, destroys people, crops, houses, everything in its way. Once a little boy was walking beside one of the dykes, saw the sea oozing through a little hole in it, put his finger in, and stopped it, until help arrived. What would have happened had not the hole been stopped? But all this was very easily prevented by stopping the sea out at first.

II. The Meaning.

Repeat the verse. What is likened to water "let out?" Explain strife. Quarrelling; trying who shall be master. Speak of nations striving; England and France; thousands killed, money wasted, misery and death brought on both nations. Imagine one of the battles; thousands of soldiers on each side, with swords, bayonets, cannons; they rush at each other; then hundreds lie dead on the field; hundreds groaning with wounds. Mothers are left without husbands. children without fathers, sisters without brothers, what misery and death are caused! Hew could this have been prevented? *By a few kind words at first; by not beginning to quarrel.* Bring out consequences of individuals quarrelling. Hatred for life, fighting, frequently murder; easily prevented by a little kindness at the beginning.

III. Application.

What can we learn from all this? What does the verse say? "*Therefore leave off,*" &c. Apply to children's own conduct towards each other. Show how much better to avoid beginning to quarrel. No good, but great harm arises from quarrelling. Now, children, let me have a few more verses on this subject. Those children who know any raise their hands. (*Teacher pointing to one*) You give us one, if you please;—"*Hatred stirreth up strife, but love covereth all sins.*" What then, is the cause of strife? *Hatred:* If, then, we do not wish to quarrel, what is to be done? *Keep from hateing one another;—love one another.* It is an honour for a man to cease from strife. Those, then, who keep from quarrelling are—*the best, and most honourable. Where there is no talebearer the strife ceaseth.* We should, therefore, *not tell tales,* or *speak evil one of another.*

Give another passage;—"*An angry man stirreth up strife.*" We should therefore avoid——*being angry.* Now let us have, in a few words what we have learnt in this lesson. *Strife or quarrelling is easily stopped in the beginning.* But leads to much misery if——*We go on with it.* And because ——What leads to quarrelling? *Hating one another: speaking evil. and telling idle tales; anger.* Therefore we should love each other; keep from evil speaking and from——*Anger.*

Name one who set us an example in these things. *Jesus Christ.* Mention an instance. *When he was reviled, he reviled not again.* Another. *When he was beaten, and spit upon, he answered not a word.* Again. *He prayed for his enemies on the cross.* Yes; and he tells us to——*Love one another even as I have loved you.*

5. The following may be taken as a specimen of *an interrogative* lesson.

LOWER CLASS.

"*Seek ye the Lord while he may be found, call upon him while he is near.*"

Teacher—Who are to seek?

Pupil—All men.

Teacher—Whom are we to seek?

Pupil—The Lord.

Teacher—When are we to seek the Lord.

Pupil—While he may be found.

Teacher—Whom are we to call upon?

Pupil—Upon him.

Teacher—While who is near?

Pupil—He.

Teacher—Who is meant by He?

Pupil—The Lord.

Teacher—What is meant by seek?

Pupil—Inquire after.

Teacher—How do you call upon the Lord?

Pupil—In faith.

Teacher—What name is given to the act of calling on the Lord?

Pupil—Prayer.

HIGHER CLASS.

"*If thine enemy hunger, feed him; if he thirst give him drink: for in so doing thou shalt heap coals of fire on on his head.*"

Teacher—What are we to do if our enemy hunger?

Pupil—Feed him.

Teacher—What are we to do if our enemy thirst?

Pupil—Give him drink.

Teacher—What shall we do by giving food and drink to an enemy?

Pupil—Heap coals of fire on his head.

The teacher in addition to such questions as these, would ask, "what is meant by 'enemy?' 'hunger?' 'coals of fire?'"

6. When the teacher has ascertained that the facts or history of the passage, and the words occurring in it, are understood, the questioning should be still further out to develop the general bearing—to explain the etymology of the principal words—to adduce collateral passages - and especially to enforce the application. Thus,

Teacher—Why are we to feed our enemy?

Pupil—Because the scriptures command it.

Teacher—Give me another passage which proves it.

Pupil—Be not overcome of evil.

Teacher—Give me another.

Pupil—Love your enemies; bless them that curse you; do good to them that hate you.

Teacher—What is meant by heaping coals of fire on the head of an enemy?

Pupil—Melting or softening him by kindness.

Teacher—Give some proof that this is the meaning.

Pupil—Because, if taken in the other sense, it is doing him an injury, which is contrary to the scriptures."

Teacher—Prove this by some passage of scripture.

Pupil—In the parallel passage (Prov. xxv.) it is added, that "For this the Lord shall reward thee." Another replies, "Overcome evil with good." And another adds, "If thou meet thine enemy's ox, or his ass, going astray, thou shalt surely brink it back to him again."

Teacher—Show how kindness to an enemy has this melting or softening tendency.

Pupil—"A soft answer turneth away wrath;" or another, using his his own words, might reply: David spared Saul in the cave, when Saul was seeking his life; and when David called after him, and he knew what kindness David had shown him, he said, Is this thy voice, my son David? and

Saul lifted up his eyes and wept. And another might make such a remark as this, which would be accepted: When we do wrong to any one else, and they do good to us in return, we are ashamed of having hurt them.

Teacher—To whom, then, is this command addressed?

Pupil—To all

Teacher—Do all men obey it?

Pupil—No.

Teacher—Why do they not?

Pupil—Because the heart of man is evil.

Teacher—What, then, is one mark of an evil mind?

Pupil—An unforgiving spirit.

Teacher—What of a spiritual?

Pupil—A spirit of love.

Teacher—To which of these does kindness to an enemy belong?

Pupil—To the spiritual mind.

Teacher—Whom should we try to resemble?

Pupil—Christ.

Teacher—Who are spoken of in the scriptures as enemies to God?

Pupil—All men.

Teacher—How has God treated us?

Pupil—Loved us while we were enemies.

Teacher—What may we learn from this?

Pupil—That if God so loved us, we ought also to love one another.

Teacher—To what extent are we to love another?

Pupil—As ourselves.

Teacher—What is the first lesson we may learn from this subject?

Pupil—That if our enemy be in our power, we are to repay his hatred with love.

Teacher—What other lesson?

Pupil—That our efforts must be directed to remove this hatred, and that we should pray to God to change his heart.

Teacher—What other lesson?

Pupil—That of the goods of which God has made us stewards, we are to be ready to dispense when the distribution will be productive of gook.

It would not be convenient or judicious to carry out questions to this extent upon every sentence read, but it is hoped that no regulerly initiated teacher will either find difficulty or feel a disinclination to make its style and spirit his daily practice in the higher classes.

In addition to this mode of interrogation, it is also useful to allow the boys to question each other occasionally, beginning at the last boy, and allowing the questioner to take precedence of all not able to answer his question. —*Handbook to the Borough Road Schools.*

Educational Intelligence.

On Saturday, February 18th, 1854, a large number of Schoolmasters who had been trained at Battersea, met at the Freemasons' Tavern, for the purpose of presenting Mr. G. W. Martin with a testimonial, consisting of a handsome silver tea and coffee service. Mr. Skelton, of the Woolwich Dockyard Schools, was called to the chair. Mr. Stevenson then read in behalf of the Battersea Masters the following address:—

The occasion which has called us together is one which has elicited a large amount of sympathy and kindly feeling from a very great number of Students who were formerly Students at the Battersea Training College.

Sincerely appreciating your past services as Professor of Music at Battersea, and hearing with deep regret of your retirement from Battersea College, we determined to raise a testimonial expressive of our earnest sympathy, and of the high estimation we have for your personal character. It is as honourable to our fellow Students, as it will be gratifying to you to know, that out of 200 Students, who have enjoyed the privilege and benefit of your instruction, the greater portion have lent their aid in contributing the means by which this testimonial has been produced. Your zeal for the extension of that part of the instruction committed to your care, your universal assiduity in the daily discharge of your duties, your frank and cordial manner, have won the respect and affection of those connected with you.

That you may long live in the cause of elementary education, is the hearty wish of all who have left Battersea.

We say no more (what we have said is sincere and heartfelt), but humbly request that you will accept this small Testimonial as a mark of our great esteem.

Mr. Martin returned thanks, after which Mr. Easton, Mr. Tilleard and others addressed the meeting.

METROPOLITAN CHURCH SCHOOLMASTERS' ASSOCIATION.

Established 1838.

The fifteenth annual report of this Association is now published. During the past year the word "Metropolitan" has been prefixed to its title, in order to distinguish it from societies of a similar character, and the privilege of membership opened to schoolmistresses. The committee bears testimony to the kindness and courtesy with which their communications have ever been received by the Committee of Council, especially in the matter of a superannuation fund for teachers.

In connexion with the library it appears that the principal booksellers have liberally placed copies of their educational works at their disposal. The idea is a good one, and as profitable in its results to the booksellers as to the Library of the Institution. Why should not country associations adopt the same course? The list of lectures given during the year is highly satisfactory, and in every way we think this Association presents a fair model for their provincial brethren.

The Annual Meeting of the Leeds Church of England Schoolmasters' Association was held on Thursday, the 22d December, 1853, when upwards of 20 members of the Association dined together at the Royal Hotel, Briggate.

The chair was occupied by Mr. Bolton of S. Andrew's, and the vice-chair by Mr. Rood of Burley School. After dinner Mr. W. Jowitt, the secretary, read the report. It stated that the Association still went on prosperously, and that the past year bore a favourable comparison with any of the preceding years of its existence.

The lectures have been delivered alternately at St. Peter's and St. George's school-rooms monthly, on the following subjects.—"Dogmatical Teaching: its progress and present state;" "Methods adopted by the Ancients for the Education of Youth;" "The Use of Objects in early Education, and how Lessons on them should be given;" "The Internal Communication of Great Britain from the earliest period to the present time, having especial reference to the influence of the same on commerce;" "Education and Educators since the Reformation;" "The Heroes of Ancient and Modern Times;" "The Manufactures of Great Britain;" "On the Transportation of Criminals;" "The Wisdom of God as displayed in the formation of Man."

The finances of the Association were upon the whole favourable, especially on taking into consideration the increased expenditure of the year. After the report had been read, Mr. Bird of Newtown School was unanimously re-elected treasurer, and Mr. W. Jowitt of S. Mary's, Quarry Hill, secretary, for the ensuing year.

The official business of the evening having been disposed of, the remainder was passed by remarks from various masters on the details of school-keeping and the present state of education.

SURREY CHURCH SCHOOLMASTERS' ASSOCIATION.

The members of this Association commenced their meetings at the beginning of January, which have been continued weekly.

The usual scholastic periodicals, together with a number of standard works upon Education, History, Chemistry, Mechanics, and Biblical Literature, &c., to the amount of £9, have been purchased, and are now in circulation in various parts of the county.

On Saturday, the 21st ult., an excellent paper was read by Mr. Denner, of Redhill, before a large meeting, which was followed by an animated discussion upon the various topics therein suggested.

Several of the members in the neighbourhood of Reigate have formed themselves into a class, in order to acquire proficiency in the Latin language, and they meet on alternate Saturdays.

We earnestly hope that schoolmasters in other parts of Surrey may be induced to form separate branches, or to join that at Reigate, and thus share in the benefits to be derived from these occasional meetings for the purpose of mutual instruction and self-improvement.

Robt. Read, Hon. Sec.

GLANFORD BRIGG CHURCH SCHOOLMASTERS' ASSOCIATION.

The second annual report of this Association gives evidence of a healthy and progressive condition. The number of members for the past year has been 68; highly instructive papers have been read by the clerical friends; the library has increased to upwards of 70 volumes, and the year closes with a balance in hand, and the prospect of still better times.

MANCHESTER GENERAL ASSOCIATION OF SCHOOLMASTERS.

The annual meeting of this Society was held on Saturday, the 11th of February, at the Merchants' Hotel, when a tolerably large number of members, both masters and mistresses, was present.

After doing ample justice to an elegant and substantial repast, Mr. Sharratt was called to the chair, and the business of the evening commenced by reading the report, from which it appears that the treasurer has a balance in hand, and that the association has not been slumbering, but that much has been done for the teacher's benefit. Classes have been formed through its instrumentality at Owen's College, by means of which the members can not only reap the benefit of instruction from the professors there, but also gain a step upwards in their position, by graduating at the London University. The Association holds its meetings quarterly, and in addition to its other objects it was resolved that in future an essay or paper on some practical subject should occasionally be read by one of the members.

During the evening the various movements in reference to the spread of Popular Education, whether emanating from the Government or other public bodies, were freely discussed.

At a meeting of deputations from the Dartford, Sevenoaks, and West Kent Associations, which was held at Lee on Saturday, Dec. 10, 1853, it was resolved—That the Dartford, Sevenoaks, and West Kent Associations unite, and form an Association for the county of Kent. That the Society be designated the Church of England Schoolmasters' Association for the County of Kent, and that its object shall be to promote the improvement of masters in the teaching and management of a school, and to diffuse educational information throughout the county by periodical meetings, held for the discussion of questions on school management, and the reading of the best essays from the District Associations. That Mr. Wedlock be requested to act as honorary secretary *pro tem.*

CLASS LIST

Of Students to whom Certificates of Merit have been awarded by the Committee of Council, after the Examination at Christmas, 1853.

CHELTENHAM.

(MALES.)

FIRST CLASS, *Third Div.*—Samuel Bethell; Frederick Cole; Alfred Cooper; John Henry Dee; John Gawn; Edward Kennedy; Thomas Shaw; Frank Tucker.

SECOND CLASS, *First Div.*—George Davis; Thomas Elliot; Robert Essex; Samuel Goodwin; Thomas Cotterill Harding; John Hardy; John Thurlow. *Second Div.*—George Ayres; William Brook; John Bownas; Thomas Coomber; William Crow; Joseph Henry Green; John Jones. *Third Div.*—Francis Hardy; David Morris; Thomas Popple; Wm. Robert Salmon; William Seaton; Charles William Taylor; J. Keeling.

THIRD CLASS, *First Div.*—Francis Ashton; James Dymond; Thos. Gardner; James Gill; Edward Wilkinson. *Second Div.*—George Arnold; William Capewell; Henry Thurley James; William George Smith; Levi Swaine. *Third Div.*—William Charles Dennis; Tho. Christopher Hatton; William Morris; William Mitchell; Thomas Spire; George Stead.

(FEMALES.)

FIRST CLASS, *Third Div.*—Ann Bryant; Margaret Jean Mustard.

SECOND CLASS, *First Div.*—Mary Ann Pickering; Alice Taylor. *Second Div.*—Selina Brown; Ann Middleton; Frances Millward; Caroline Stacey; Alicia Sarah Saylor; Elizabeth Ann Tee. *Third Div.*—Johanna Buckle; Ellen Davies; Jane Frame; Mary A. Howse; Ellen Ripley; Eliza Robinson; Emily Waite.

THIRD CLASS, *First Div.*—Sarah Dale; Mary Fawcett; Mary Ann Gifford; Anne Jagger; Elizabeth King; Charlotte Mason; Harriet Wright; Elizabeth

Whitcley. *Second Div.*—Hannah Fox; Margaret Fraser; Sarah Ann Mortimer. *Third Div.*—Martha Cotterill; Hannah Fallding; Frances Thomas.

WORCESTER (SALTLEY.)

SECOND CLASS, *Second Div.*—T. Jackson, J. Smith, W. Tyler, *Third Div.*—R. Bond, P. Spencer, W. Swallow.

THIRD CLASS, *First Div.*—E. Fletcher, T. Hawkins, T. Hollis, S. H. Platt. *Second Div.*—J. Anderson, W. Bridget, T. Dodwell, G. Weaver. *Third Div.*—W. Barnes, W. Hawkins, G. Midgeley, J. Sheppard.

HIGHBURY.

SECOND CLASS, *Second Div.*—G. Garrett, C. Weston. *Third Div.*—L. Kew, C. S. Marks, R. Marks, R. Rawlings, W. Read, S. Wheeler.

THIRD CLASS, *Third Div.*—F. Bourn, T. Porth, J. Mitchell, T. Phillips, S. Brooks, J. Walker. *Second Div.*—G. Barham, T. Betson, T. Dexter, C. Groome, D. Shea, F. Kent, T. Baber.

CLASS LIST

Of Teachers of Schools in connection with the Scottish Episcopal Church to whom Certificates of Merit have been awarded by the Committee of Council, after examination by H.M. Inspector, the Rev. Thomas Wilkinson, at Edinburgh, in the month of June, 1853:—

SECOND CLASS, *Second Div.*—Wm. H. Richardson, Leith, S. James's Episcopal.

THIRD CLASS, *First Div.*—Wm. Bailey, Glasgow, the Bishop's S.; James Lazenby, Aberdeen Episcopal; Wm. Stephen, Catterline, S. Philip's Episcopal. *Third Div.*—James Brand, Montrose, S. Mary's Episcopal.

MISTRESSES.

SECOND CLASS, *Third Div.*—Elizabeth M. Buckley, Lochgilphead Episcopal.

THIRD CLASS, *Third Div.*—Jane E. S. Maclachlan, Edinburgh, Trinity Episcopal.

CLASS LIST OF MASTERS AND MISTRESSES

Of Schools connected with the Church of England, or former Students in Church Training Schools, to whom the Committee of Council on Education have granted Certificates of Merit, after Examination before Her Majesty's Inspectors, at Christmas, 1853.

NOTE.—In the case of Trained Teachers, the Institution at which they were formerly Students is indicated in brackets.

I. MASTERS.

FIRST CLASS, *First Div.*—William Easton (Battersea), Beverley, St. Mary and St. Nicholas N. S. *Third Div.*—Cartwright, George Peter (Chester), Manchester Cathedral S.; John Sutcliffe (Glasgow), Cheltenham Normal S.

SECOND CLASS, *First Div.*—John Causier (Battersea), Battersea, Price's Factory S.; William Haworth (Chelsea, St. Mark's), Strood N. S., Rochester; Robert Ross (Borough Road), Cheltenham Normal S.; Charles Sexty (Cheltenham), Southborne N. S., Eastborne; Thomas Winter (Battersea), Douglas, Athol Street S. *Second Div.*—John Allport (Lichfield), Smalley N. S., Derby; John Brown, Kirkdale Industrial S., Liverpool; George Andrews Ferraby (Westminster), Marston N. S., Ampthill; James Wilson Gawn, (Glasgow Free Church), Trowbridge Par. S.; Henry Hale (Winchester), Portsmouth N. S.; John Hargraves (Westminster), Spalding N. S.; Robert Lidgate (Winchester), Old Kent Road, St. Mary's N. S. London; Henry Marsh, (Winchester), Mitcheldever N. S., Andover Road; Thomas Rickard (Chelsea, St. Mark's), Withyham, St. Michael's N. S. *Third Div.*—Frederick Hobley (Oxford), Brightwell N. S., Wallingford; Robert Jones, Ruthin N. S.; Thomas Robert Marrison (Chelsea, St. Mark's), Baldwin's Gardens N. S.; Griffith Pritchard (Carnarvon), Clymog N. S., Carnarvon; John Reed (Battersea), Tiverton N. S.; Samuel Reynolds (Chelsea, St. Mark's), Great Strickland C. of E. S., Penrith; Ellis Roberts (Carnarvon), Waenfawr N. S., Carnarvon.

Third Class, *First Div.*—Thos. Dodsworth Barker, Leeds, Christ Church N. S.; Cornelius Batchellor, (Chelsea, St. Mark's), Latton S., Cricklade; Henry Copeland, Liverpool, Windsor St. Clement's N. S.; William Palmer Coxhead (Chichester), Hampstead N. S.; John Lewis Saxton Battersea), Islington, St. Michael's N. S.; Henry Lupkin Skeet (Chichester), Tillington N. S., Petworth; John Stanwick, Gilling N. N., Yorks; Alfred John White, (Exeter), St. Antell N. S. *Second Div.*—James Jacob Burt (Exeter), Monkton. Farleigh S., Wilts; Francis Dakin (Battersea), Machester, St. Thomas, Red Bank N.S.; James Earl (Cheltenham), Cheltenham, Christ Church N. S.; James Henry Gilbert (Oxford), Brixham; Charles Griffiths (Westminster), Blandford, Dorset; Joseph Lees, Liverpool, St. Jude's N. S; James Manley (Exeter), Clevedon, N. S.; George Mill Battersea), Hawkesbury N. S., Wootton-under-Edge; William Henry Remfrey (Glasgow), Stonehouse N. S., Plymouth; George Reynolds (Chichester), Almondsbury, Bristol; John Studdle (Westminster), Stockwell N. S.; George Henry Tucker (Battersea), Ryde N. S.; David Walker (Edinburgh and Battersea), Lincoln, Central N. S.; Frederick Henry Walker, Bollington Cross, Macclesfield. *Third Div.*—Charles Baber (Highbury), Stratford, Christ Church N. S.; William Bailey (Glasgow), Newington, St. Mary's N. S., Middlesex; Ebenezer Bowman (Battersea), Castle End N. S.; William Thomas Carr, Leeds, Robert Town N. S.; Clark Cleaver (Battersea), High Cross N. S. Ware; Henry Matthews Davey, (Chelsea, St. Mark's), Jersey, St. Mark's N. S.; William Evans (Carmarthen), Cardiff, St. Mellon's S.; Edward William Flower (Oxford), Amesbury, Salisbury; John George (Westminster), Gnildford, Holy Trinity N. S.; James Hollingworth Goodwin, Belper N. S.; Peter Harrison, Crosthwaite Free S., Keswick; George Hewitt, (Battersea), Nottingham, St. Paul's N. S.; William Hibbins, (Battersea) Bristol Industrial S.; William Howitt (Westminster), Shardlow P. S., Derby; Wm. Norbury Jenkyns, New Radnor, Borough S.; Isaac Benjamin, Cadoxton N. S., Neath; Charles Jones (Chelsea, St. Mark's), City Road, St. Matthew's N. S., London; Alfred Knight (Winchester), Gosport, St. Matthew's N. S.; Thomas Laurie, (Battersea), Oundle N. S.; Edwi Marony (Chelsea, St. Mark's) Pollington N. S., Snaith; Samuel Mills (Winchester), Bramsham Boys' S., Lyddhurst; John Newlyn, Brompton N. S., Chatham; Henry Palmer, (Chichester), Coldwaltham, St. James' N. S.; Edward Pugh, Willenhall, St. Giles' N. S.; John Reece, (Chester), Sutton N S., St. Helen's; Edwin Simpson, Kew, Cueen's S.; Richard Smith; (York), Wakefield, All Saints' N. S.; William Smith (Westminster), Pitminster N. S.; Edward Wilcox, (Cheltenham), Harmstone N. S., Lincoln; William Youlden (Cheltenham), Bermondsey, Christ Church S.

II. MISTRESSES.

First Class, *Third Div.*—Gillott, Matilla (Whitelands), Whitelands.

Second Class, *Second Div.*—Balwin, Emma (Salisbury), Salisbury Diocesan T. S.; Hollins, Elizabeth (Cheltenham), Birmingham, St. George's; Watters, Emma Elizabeth (Whitelands), Whiteland Infant. *Second Div.*—Jenvey, Annie (Home and Colonial), Witham N. S.; Slater, Caroline (Westminster), Swinton Industrial S.; Venison, Louisa (Home and Colonial), Bristol, St. James'; Twisden, Clara (Westminster), St. Martin's in the Fields Northern District, N. E. *Third Div.*—Jefferies, Elizabeth T. (Home and Colonial), Westminster Chapel S.; Lloyd, Elizabeth Ann (Derby), Derby Diocesan T. S.; Pike, Elizabeth M Landport, All Saints'; Roberts, Elizabeth (Home and Colonial), Calne N. S.; Salmon, Emily H (Cheltenham), Bloomsbury, St. George the Martyr; Thornton, Emma (Whitelands), St. Pancras, Holy Trinity.

Third Class, *First Div.*—Blatchley, Jane (Home and Colonial), Tiverton B. S.; Brightwell, Lydia Selina (ditto), South Lambeth Upper S.; Cox, Mary Jane (Whitelands), St. Pancras Ch. Ch.; Forster, Mary (York and Ripon), Neswick N. S., Driffield; Friar, Sarah (Warrington), Preston, St. James'; Green, Emma (Cheltenham), Weymouth N. S.; Gwillin, Margaret (Westminster), Croydon N. S.; Holbrow, Elizabeth (Home and Colonial,) Witham N. S.; Laing, Elizabeth New Leeds, Bradford; Matthews, Lettitia S. (Dublin), Liverpool, St. Martin's; Southcott, Mary Ann (Home and Colonial) Ipswich, St. Clement's; Wood, Ann (Ditto), Stoke on Trent, Infant S. *Second Div.*—Bathe, Mary (Cheltenham), Windsor, St. Clement's, Liverpool; Day, Emma (Whitelands), West Ashton N. S.; Erskine, Helen (Glasgow Normal), Broadstairs N. S.; Fish, Hannah (Home and Colonial), Chelsea; Fitzgibbon, Margaret (Ditto), Melksham N. S. Wilts; Fry, Elizabeth E (Cheltenham), Carlisle, Fawcett S.; Gardner, Lucy (Warrington), Wallasey S., Birkenhead; Harris, Huldah H Islington, Matthew's; Ives, Sarah J (Home and Colonial), Manchester, St. Jude's N. S.; Lawson, Marie Scott (Ditto), Poplar Infant S.; Meyers, Susan E Rotherham, Wentworth S.; Pointing, Eliza (Westminster), Longroyd Bridge, Huddersfield; Shurmur, Anna Elizabeth (Cheltenham), Charlton. *Third Div.*—Arnell, Harriett Carty (Brighton), Selmeston, Lewes; Badderley, Mary (Home and Colonial), Wellingborogh Infant S.; Ball, Dorothy Freehay, St. Chad's; Chambers, Abigail (Home and Colonial), Rochester, St. Nicholas; Cole, Ann Caroline (Ditto), Plymouth, Charles N. S. Cox, Harriet Burton on Trent, Infant S.; Dawson, Harriet (Home and Colonial), Islington, St. Peter's; Ellis, Maria E (Ditto), Hull; Fisher, Elizabeth (Westminster), Portman Square N. S.; Furnaess, Sarah (Ditto), Llangenneck N. S., Llanelly; Gillespie, Mary (Whitelands), Hopesay S., Aston on Clun, Salop; Green, Elizabeth Jane Douglas, St. Barnabas, I. of M.; Howlett, Hannah (Home and Colonial), Rugby, St. Matthew's; Jenkins, Matilda, Rhyl N. S.; Jones, Elizabeth, Hereford Blue Coat; Lockwood, Elixabeth (Whitelands), Willian N. S., Herts; Moore, Mary A (Home and Colonial), Birmingham, St. Stephen's; Nash, Harret (Westminster), Warwick, Borough N. S.; Nellar, Emma E (Home and Colonial), Bethnal Green, St. Bartholomew's; Perryman, Harriet (Cheltenham). Walthamstow N. S. Infant S.; Pratt, Elizabeth (Brighton), Selmeston Par. S.; Randall, Martha, Baraet, Sherley S.; Simpson, Jane B (Westminster), Westminster Ch. Ch.; Smith, Hester (Home and Colonial), Corfe Castle, Wareham; Smith, Elizabeth (Ditto), Byfield S., Daventry; Sully, Jane (Westminster), Croydon, Archbishop Tenison's; Taylor, Catherine A. (York and Ripon), Scarborough N. S.; Wilcockson, Mary Frances (Westminster), Smalley, Belper; Wochele, Helen, Ipswich, St. Peter's.

The following instructional letter has been issued by the Committee of Council on Education, in reference to the decimal coinage. It is addressed to her Majesty's Inspector of Training Schools:—

"WHITEHALL.

"Rev. Sir,—I am directed by the Lord President to bring under your notice the fact that there is a very strong feeling in the country that we should adopt a system of decimals in our coinage, and in our weights and measures. The strongest objection urged against this change is, that it would create misapprehension and distrust in the minds of the people. The Lord President thinks that you might with advantage call the attention of the principals of training schools to the importance of thoroughly imbuing the students under their charge with such a practical knowledge of decimals as will enable them to disseminate the information needed to accompany such a change. The Lord President thinks that this may be done by a special notice in your report for the year 1853-4, by personal communication in the course of your next circuit of inspection, and by introducing a few questions that bear upon the subject in the examination papers to be proposed in December, 1854.

"I have the honour to be, Rev. Sir,
"Your obedient servant,
(Signed) "R. R. W. LINGEN."

NOTICES OF BOOKS

Principles of Education.—By Hugo Reid.—Longman and Co.—Mr. Reid in his preface states that he has endeavoured to prepare an elementary guide, for those who are for the first time undertaking the office of Educator, "exhibiting a view of the nature of the being to be educated, as the first consideration; next, an account of the objects we should aim at in educating him; and, lastly, a description of the means by which he should be educated."

The *first* chapter on the nature of the being to be educated is very valuable, and the more so, because too little attention has been given to it even in works professedly on Education. In introducing this part of the subject, the writer forcibly observes, "Whoever desires to practice the art of training on any kind of principle, not by mere routine nor by hap-hazard groping in the dark, must be in possession of minute and accurate knowledge on the fundamental points. Without such knowledge as a guide, education can be no more than guess-work, as often wrong as right, or empiricism,—blind subjection to established modes. No doubt, every one, from observation and experience, both of his own nature and that of others, has some general notions on these all-important subjects. But, unless his rough natural knowledge be corrected, extended, systematised, and deeply rooted in the mind of the educator by special study and frequent thought, it is apt to be based on narrow views, to be loose, imperfect, ill-defined, and to be so faintly impressed upon his mind, that it is readily obscured by passion or prejudice, and often wanting or forgotten at the time when it is most required. As a foundation therefore, on which to rear a solid and enduring super-structure of the science of education, it is necessary to establish what are the great and leading features in human nature, and what are its principal relations to surrounding influences—subjects of which the educator ought ever to have before him a clear and distinct view."

The *second* chapter treats of the objects of Education, intellectual and moral.

The *third* chapter is given to a consideration of Discipline, and the principal means of which the Educator can avail himself, for maintaining an influence over his pupil. The sections on rewards and punishments are such as should claim a careful examination on the part of Teachers.

The *fourth* chapter treats of moral training. Mr. Reid, speaking on the neglect of this most important element in education says, "It may be doubted whether it is at all generally recognized as a branch of education requiring any specific attention." We think this statement is too strong; we think that it *is* generally recognized, and has been so for years, though there have been great differences of opinion, as to the best method of securing it. This is not to be wondered at, seeing that the educational movement in this country may be said to be but in its infancy. Without denying the power of the school in connexion with Moral Training, we quite agree with the following remarks on the greater power of Home Influences. "Home, if as it should be, is the great means of cultivating the tastes and affections, of forming and training the temper, conduct, and habits. This it does by the gentle but irresistable force of the continual examples of those whose example, above that of all others, operates upon us; who are constantly beside us, nearest to us in affection; on whom we look with a feeling of love and respect akin to that of worship; who possess our entire confidence: who are necessarily our constant models; whose sway over us has a sacred power in the fine ties of the heart; who do not wear any mask before us; whose whole familiar life is open to our view. These we naturally and insensibly imitate; their views and principles we imbibe; their manner and conducts form ours; of their life we are the counterpart; and the most effective—indeed the only effective moral training, is the influence of the instruction, conversation, and advice of the parents, the example of their manner and conduct."

The remaining chapters embrace the subjects of Instruction and Mental Discipline. Some very sensible remarks are made here on the synthetic and analytic methods, and their application. The principles to be observed in the practice of teaching are clearly enunciated, and to each is appended a short but lucid exposition.

With an exception or two, our opinion of this book is decidedly favourable, and we have no hesitation in recommending it as deserving a place in the libraries of Elementary Teachers and Country Associations.

Training of Pupil Teachers.—By J. J. Farnham.—Wesley and Co.—This tract contains the Essay for which the prize offered by the Metropolitan Church Schoolmasters' Association, was awarded by one of Her Majesty's Inspectors of Schools. It treats in separate chapters of the Intellectual, Moral, and Religious Training of that new and interesting class of young people, engaged as apprentices in schools under government inspection. Mr. Farnham writes simply but earnestly, and his remarks are always practical,—no small recommendation in a work of this kind. We can most cordially commend it to our readers.

Scripture Teachers' Assistant.—By H. Althans.—Butt, London.—We have before spoken favourably of this book, as being well adapted for a *first* book, for class teaching. Though the number of Sunday School Teachers is rapidly increasing, who do not need such helps, there yet many to whom such works are necessary. Another new edition, at a reduced price is sufficient evidence of its favourable reception. We wish it success.

Origin of Alphabetical Characters.—By G. J. Stevenson.—Wesley and Co., London.—The substance of a lecture delivered to the Church Schoolmasters' Association, at the Sanctuary, Westminster. The writer says the design of the lecture is to set forth the best evidence which can be collected, in defence of the Divine Origin of Alphabetical Characters. Much labor has been bestowed on this tract, the authorities are of the best, and the result is an interesting *brochure*. We may observe, that it has already reached a second edition.

Hay's Class Register.—Varty and Owen.—Too much importance cannot be attached to correct registration in schools, hence the Committee of Council on Education, in the instructions furnished to Inspectors of Schools, says, "Her Majesty's Inspectors are required to note those schools in which the Registers are imperfect or imperfectly kept. The Committee of Council would consider continued neglect in this particular as a ground for ultimately withholding annual grants from the school in question."

Mr. Hay's Class Register makes provision for showing at one view the name, age, address, weekly payments, and morning and afternoon attendance for three months; with columns for a Quarterly Abstract and Reports. The best recommendation we can give is, to state that Mr. Hay has for years successfully conducted a Metropolitan school, that his Register is published by solicitation of his fellow teachers, and moreover is approved of by several of Her Majesty's Inspectors.

Prefixes and Affixes of the English Language.—Varty and Owen.—We have here six sheets, on which are printed classified lists of our Prefixes and Affixes, with the meaning of each, and examples of their use. The idea is, to provide an apparatus for an elementary course in the English language, adapted for class and sectional teaching. The sheets are large enough to admit of the employment of a bold and clear type, the words are therefore readable at a considerable distance. We feel great pleasure in recommending these Wall Tablets for general use.

Dates and Facts of British History.—Ward and Co.—This handy and very cheap chronology is characterised by its fulness and peculiarity of arrangement. To each of the dates (near 500) is affixed an event conveyed in words which are rhythmically divided. The object of this division is to allow of the several lines being chanted, when the teacher shall so choose. In this way these chronological lines may be chanted during the movements of the school, and by repetition fixed on the memory. "Each section forms the outline of a lesson which a teacher may fill up by sketching all the important events and circumstances implied in it, and producing an epitome of the life of each of the noted characters, the dates of whose births, deaths, or public acts it contains; the section under consideration, having been previously given as a *home lesson* to be got by memory." This extreme cheapness of this little hand-book of dates should commend it to elementary teachers for their senior scholars.

The Case of the Manchester Educationists.—Part II.—By J. H. Hinton, M.A.—Snow, London.—This pamphlet contains a review of the evidence taken before a Committee of the House of Commons, in the session af 1853, in relation to the state of Education in Manchester and Salford. The object in its publication is to put into the hands of the public all that is said by the advocates of the current educational movements respectively, and thus supply materials, by which those who will direct their attention to the subject may be guided. To prevent misconception the writer very fairly states, that the reader "has before him not a *digest* of the evidence, but a *review* of it, by one of the parties to the controversy; namely, by a Voluntary, and in the sense of the Voluntaries as an educational party."

The evidence, as much of it as is here given, is classed under the following heads,—the Educational duties of the state; the Voluntary System; the Secular System—its Scope, Teaching, Deficiency, Supplement, Machinery and Expediency; the Local and Secular Schemes compared; and on Compulsory School attendance. As the subject of Education is gradually becoming *the* question of the day, a review of this character cannot fail to attract many readers.

EXAMINATION PAPERS *(continued)*. *CHRISTMAS*, 1853.

LANGUAGES.

Three hours allowed for this paper.

Section I.—1. Fill up the following table so as to show the *case-endings* of Latin Substantives in each declension.

(N.B. Columns are here ruled for five declensions, but you may take the number from the particular Grammar which you have studied.)

	DECLENSION.				
SINGULAR.	1	2	3	4	5
Nominative......					
Genitive					
Dative					
Accusative					
Vocative					
Ablative					
PLURAL.					
Nominative......					
Genitive					
Dative					
Accusative					
Vocative					

2. Decline in both numbers, each of the following nouns:—

verbum	salix.
ovis	

(In each case separate *the root* by a hyphen from the *case-ending*).

3. Illustrate the meaning of

regular, and *irregular*,

as grammatical terms, by means of the inflexions for *comparison* in Latin adjectives.

SECTION II.—1. Translate the following passage *literally*, and then parse it —(*a*) according to its *accidence* only; (*b*) according to its *syntax* only.—

> Terrenorum commodorum omnis in homine est dominatus. Nos campis, nos montibus fruimur: nostri sunt amnes, nostri lacus: nos fruges serimus, nos arbores: nos aquarum inductionibus terris fœcunditatem damus: nos flumina arcemus, dirigimus, avertimus: nostris denique manibus in rerum naturâ quasi alteram naturam efficere conamur.

2. Give an example, in Latin, to illustrate each of the following rules:—

(*a*). The infinitive mood used as a nominative case.

(*b*). The agreement of the verb with *the more worthy* person.

(*c*). The ablative absolute.

(*d*). The difference of case to distinguish between a *point of time* and *duration and continuance of time.*

SECTION III.—Explain (by the etymology) the difference of meaning in the following words:—

Construction, destruction, instruction, obstruction.
Contraction, subtraction, distraction.
Infraction, refraction.
Satisfaction, sufficient, refectory, factitious.

2. Parse the words—

amares,	tulisses,
rexeram,	audiemur.

Specify separately in each instance the part of the word which denotes—

the root	the person,
the mood	the number,
the tense,	the voice.

3. Mark each syllable (long or short) *in* the following lines, and mark the *scansion* of each line by a vertical stroke at the end of each foot:—

Solæ communes natos, consortia tecta
Urbis habent, magnisque agitant sub legibus ævum:
Et patriam solæ, et certos novere penates.

SECTION IV.—1. Explain (by etymology) the meaning of the following words:—

Anatomy—Astronomy—Geography—Grammar—Alphabet—Horizon—Ecliptic—Ecstacy—Economical—Ecclesiastical—Episcopal—Tyranny.

2. Group together the active tenses of the Latin verb *rego*, in the indicative mood, accordingly as they represent an action (complete or incomplete) in present, past, or future time.

3. What difference do the tenses of a Greek verb present when subjected to a similar classification?

4. *On the matter of the foregoing questions* found some remarks to illustrate the difference between *general* grammar and ths grammar *of any particular language.*

SECTION V.—1. Translate *literally one* of the following passages :—

i. Καὶ προσέφερον αὐτῷ παιδία, ἵνα ἅψηται αὐτῶν· οἱ δὲ μαθηταὶ ἐπετίμων τοῖς προσφέρουσιν. ἰδὼν δὲ ὁ Ἰησοῦς ἠγανάκτησε, καὶ εἶπεν αὐτοῖς, "Ἄφετε τὰ παιδία ἔρχεσθαι πρός με, καὶ μὴ κωλύετε αὐτά, τῶν γὰρ τοιούτων ἐστὶν ἡ βασιλεία τοῦ Θεοῦ· ἀμὴν λέγω ὑμῖν, ὃς ἐὰν μὴ δέξηται τὴν βασιλείαν τοῦ Θεοῦ ὡς παιδίον, οὐ μὴ εἰσέλθῃ εἰς αὐτήν." Καὶ ἐναγκαλισάμενος αὐτὰ, τιθεὶς τὰς χεῖρας ἐπ' αὐτὰ, ηὐλόγει αὐτά.

a. How is the sense affected by the difference in *tense* of ἐναγκαλισάμενος and τιθεὶς. Look again at your translation, and be sure that you have expressed in this part of it, the exact meaning of the original.

b. Write out *separately* the parts of προσέφερον—ἅψηται—ἠγανάκτησε—προσφέρουσιν—which mark.

the root (and particle).
the mood.
the tense.
the person.
the number.
the voice.

c. Decline in both numbers

μαθητὴς.
παιδίον.
χεὶρ.
βασιλέια.

SECTION VI.—Translate the following passage, and parse the words printed in Italics :—

Mentor *vit* bien que Télémaque allait retomber dans toutes *ses* faiblesses, et qu'il n'y avait pas un seul moment à perdre. Il *aperçut* de loin, au milieu des *flots*, un vaisseau qui n'*osait* approcher de l'île, *parceque* tous les pilotes connaissaient que l'île de Calypso était inaccessible aux mortels. Aussitôt le sage Mentor poussant Télémaque, qui était assis sur le bord du rocher, le précipite dans la mer, et *s'y jette* avec lui. Télémaque, surpris de cette violente chute, but l'onde amère et devint le jouet des flots. Mais revenant à lui, et voyant Mentor qui lui tendait la main pour lui aider à nager, il ne songea plus *qu' à s' éloigner* de l'île fatale.

Correspondence.

SIR,—T. W. proposes a query in your last respecting the proportion of Oxygen and Carbonic Acid in atmospheric air; and wishes to know why there should be an excess of Oxygen during the winter season, when the foliage of trees, which is the principal source of its generation does not exist.

I presume T. W. refers only to the ratio existing between the oxygen and carbonic acid of any given quantity—say one cubic foot—of atmospheric air in the temperate and northern latitudes: as otherwise, speaking generally, the atomic proportion of oxygen to carbonic acid in the constituent elements of the globe never varies. There never was one atom of oxygen more—nor one atom of carbonic acid less—at any one time than at any other time; and consequently my remarks are only applicable to such a particular case as that above stated.

The proportionate excess of oxygen in the atmosphere of winter can be accounted for either by a diminution in the amount of carbonic acid contained in the air, or by an actual decrease in the usual consumption of oxygen, or by a combination of both of these causes.

Putrefactive fermentation is one of the chief sources from whence the atmosphere derives its carbonic acid—temperate heat and moisture being great promoters of such fermentation—while on the other hand, cold, by the congelation of fluids materially retards it, until the temperature sinks to 30° when it is stopped altogether; hence, in winter there is a great decrease in the supply of carbonic acid in the temperate regions, and an almost total absence of it in the atmosphere of more northern latitudes. From the former of these reductions we conclude that a cubic foot of air in winter would contain an increased proportion of oxygen as compared with the quantity of carbonic acid:—and from the latter—that the north winds so frequent in winter bring us air almost free from carbonic acid and therefore containing oxygen in great excess.

As to the actually decreased consumption of oxygen in winter we refer to the absence of smaller classes of animal life, as migratory birds and insects. At first sight this appears quite insignificant, but when we remember the fact that the number of respiratory movements of animals is in corresponding ratio to their muscular energies, and how much the muscular powers of birds and insects exceed that of the mammalia, we shall see it has very much more to do with the subject than we supposed. Birds and insects consume in proportion to their size more oxygen than any of the other classes of animals. A Bee, for instance, in motion makes from 120 to 140 respirations in a minute; a man from 14 to 18. The respiratory vessels of the bee extend over his whole frame; that of the man over his lungs—but a very small part of his frame. A hive of bees contains about 20,000; these consume about 104 cubic feet of oxygen, and produce about 4 cubic feet of carbonic acid in one hour. A man consumes in the same time about 10 cubic feet of oxygen and generates about 5-twelfths of a cubic foot of carbonic acid And when we remember that every bank has its wasp nest, each as well stocked as the bee hive; that the air in summer and autumn literally swarms with myriads of insects which are totally absent, or in a state of hybernation in winter, we have reasonable grounds for accounting for a proportionate excess of oxygen in the elements of atmospheric air in winter.

NESCIUS.

SIR,—Your correspondent T. W. must permit me to remark, that he has rather loosely expressed the "well-known fact", relative to the absorption of carbonic acid, by the leaves of plants. "Carbonic acid gas" does not "form woody fibre." The gas is decomposed by the leaves: one of its constituents, the carbon, they fix or retain; but they liberate its other constituent, the oxygen. It must be remembered that they do this only under the influence of light. During the night, plants give out carbonic acid; but as this process goes on more slowly than the decomposition of the gas by day, we regard plants, upon the whole, as purifiers of the atmosphere. T. W. conjectures rightly that the greater amount of oxygen in the atmosphere in winter, is mainly due to a condensation of the air by cold." But there is another condition of the air, attendant upon its density, which should not be overlooked; that is, its dryness. The space occupied by the watery vapour, in summer, is partially filled up, in winter, by the other gases composing the air; hence, a greater quantity of oxygen must be present in a given space. I speak here of the absolute quantity of oxygen; the relative quantity, i.e. the proportion of oxygen to nitrogen, remains the same.

The absence of leaves, or their decay, does not materially affect the atmosphere at any one spot. The oxygen liberated by them does not remain near, or about them; but, by virtue of its diffusive power, spreads itself through the whole atmosphere. Similarly the carbonic acid gas, produced by the respiration of animals, combustion, and the decay of animal and vegitable substances, does not accumulate at the earth's surface; but, by the same property of diffusion, mingles with the other portions of the atmosphere, and is soon so much diluted as to be comparatiuely harmless. (This can be demonstrated by a very simple experiment.) Thus the equilibrium of the atmosphere is preserved chiefly by the diffusive force of gases. Winds also contribute greatly to the same result. The very particles of air which, at one time, wave the luxuriant foliage of the tropics, by and by, play among the ivy and roses of the English peasant's home. C. T.

SIR,—Would you have the kindness to allot a portion of your valuable Paper to the analysis and construction of sentences. Such information is very much wanted, because the subject is so lightly treated by works professedly on the subject; and by your Paper supplying the present defect, you would be conferring a most valuable boon on many a young man who, like myself, is preparing for an examination.

The subject would not, like the notes on lessons, need to be continued more than a single paper or two. G. P.

[Some such examples were given in page 84 and 111 of Vol. II. of the Papers; when opportunity offers we may give other examples.]

SIR,—Would any of your correspondents, through the medium of your Paper, be so kind as to inform me of the best work on the Education of country—historically considered.

E. S.

PAPERS FOR THE SCHOOLMASTER.

No. 38. APRIL 1, 1854.

Claims of Language in Education.

Though language, from the position which it has so long held in the school system for the upper and middle classes of Englishmen, may be thought almost to have gained a prescriptive right to be considered the indispensable basis of a liberal education, we believe that the time is all but come when it will have to submit to a reconsideration of its claims in this respect. Hitherto no practical adjustment has been attempted. The strongest partisans are always the first to take the field, and the preliminary skirmishes have been, therefore, for the most part, between the most violent opponents of the classical discipline of our Grammar Schools and those who would uphold the existing system in its integrity. "All Latin and Greek, or none," has been the form which the question has mainly assumed, and therefore it is that we see every inch of the most untenable ground obstinately contested, while the real merits of the question under controversy are altogether lost sight of. We believe that its ultimate solution will rest rather upon the comparative claim of Language, in common with other subjects of instruction, and will thus affect the exclusiveness of the present discipline, and the period of life at which it shall be applied, rather than aim at superseding it entirely. Leaving it to others, however, to propose a school programme which shall justify "the wisdom of our ancestors," and at the same time meet the requirements of this 19th century, our present purpose is simply to point out some of the advantages which the study of language seems, if not exclusively, at least pre-eminently, to offer as an instrument of mental discipline.

It is not seldom taken for granted that the sole return for th labour of acquiring a language is in the information which its writers have to convey. It is strange to find one, whose example would perhaps first occur to us to cite on the negative side, insisting so strongly upon this. It is Milton speaking. "Language is but the instrument of conveying to us things useful to be known. And though a linguist should pride himself to have all the tongues that Babel cleft the world into, yet if he have not studied the solid things in them, he were nothing so much to be esteemed a learned man as any yeoman or tradesman competently wise in his mother dialect only." If this is so, may every foreigner possess his prose translation of our immortal epic; nay, let an analysis content him. Assuredly, in every case, except in the statement of mere facts, the words in which the thoughts first clothed themselves, the order in which the mind, in obedience to hidden laws, marshalled them; in fact, the *manner* of conveying, as contrasted with the *matter* conveyed, must have a significance and value which no translation can secure. That in acquiring a language, however, we are also gathering information, is an advantage on the side of this branch of study which we are not all disposed to underestimate. It will always be the best fruit of an intimate acquaintance with our own, and, we suppose, the principal motive, in most cases, to learning a foreign tongue. Still, it is an insufficient account of the good which may result from its pursuit as a study, to estimate only the information gained, overlooking the solid utility derivable essentially from the study itself.

We affirm, on the contrary, that it is from the study, conscious or unconscious, of the philosophy of language, that we are to look for the strengthening of the intellect, and the maturing of the various powers of the mind, and that to a degree scarcely attainable by any other discipline. The exact processes of mathematical science may impart subtlety and logical accuracy, and also train to habits of concentration and sustained exertion—the physical sciences may cultivate the powers of observation and classification, but the study of literature most equably develops in harmonious proportion the various faculties of the mind, and gives it that mastery over itself which it should be the highest aim of education to bestow. Language is not a mere collection of names; its combinations are not an arbitrary association of symbols. Plato long ago defined thought to be "the soul's hidden speech," and to this it has been well added, "Speech is the soul's open thought." As the complex organ of human communication, fashioned in obedience to the laws and principles of our mental constitution, it reflects faithfully the otherwise hidden processes of the mind. We are led, therefore, most surely to a knowledge of these by an analysis of its structure. We teach ourselves to think by tracing the natural development of thought in others. Apart from the value of the treasure we may amass by making our author's experience our own, we extract from him, as it were, the secret of collecting such experience for ourselves. We are not only storing up knowledge, but we are providing in the surest way for its future use and usury, by cultivating and strengthening the very same faculties which were employed in its original communication. It cannot be for a moment doubted that the discipline to which we submit the mind in mastering the conceptions of an author in our own language, or in that unconscious process of analysis which is necessitated by the very act of translation, must bear very powerfully upon its own capacity for abstract thought. It must ultimately gain in clearness and precision in expressing and arranging its ideas; confusion will give place to subordination, as general laws are perceived to govern what seemed a mere ferment of words; logical accuracy will become a habit, which will accompany it in all its conclusions; and then it will gain a knowledge of its own resources, and a power of command over their employment, which may fairly constitute a claim to independence. It is not therefore without reason that the study of language has been made, since the revival of classical learning, the basis of English education and the avenue to distinction in our Universities. They may have been taught too exclusively, to the neglect of other most important subjects, but at least the choice has been justified, as well by their own well-substantiated claims to giving energy and power to the most valuable faculties of the mind, as by the results which they have confessedly produced For those who have to teach others we should say that the study of language is almost indispensable. The discipline which we have declared it to afford is precisely that which the teacher can least of all do without. The *form* is to him as important as the *matter*. Power to think, to express, and to combine with rapidity and certainty—to be instant master of his own conceptions—to enforce them with variety of illustration, and be able to analyse their effect upon the minds of others—all this is necessary to a good teacher, and all this demands familiarity with the weapons of thought. It is a further question how far these results may be gained by the study of our own language alone, or what additional advantage may be promised to our extending our attention to others. In a future number we may discuss, as the question is now become one of greater practical interest to those for whom we write, the relative importance to be assigned, in the scale of educational influences, to the study of the Dead Languages. We now only observe that we believe they have been accredited with more than their share of the virtue which should be attributed to the study of Language and Literature generally, and that the greater part of the utility which we have shewn to belong to their studies would be the result of an equally careful attention to the grammar and literature of our own tongue, to paraphrase and the analysis of sentences, to oral and written composition. Q. E. D.

Mathematical Geography.

No. II.

Having now made his class acquainted with the nature of rotation, the Axis, the Poles, and the Equator, the teacher may proceed to instruct them in the meaning, &c., of *latitude*. He should begin by explaining the nature of *parallel* lines, whether they be straight or curved, using for this purpose the definition of parallel lines—that they are everywhere at the same distance; which, for lessons in Geography, is more suitable than Euclid's definition. The next terms to be explained are—*small circle, parallel of latitude, meridian,** *latitude*, and *a degree*, as the 90th part of the distance from the equator to either pole. It should be distinctly pointed out that latitude is measured along the meridian line, the line that runs north and south from each place; that every place on the same parallel has the same latitude; that the degrees of latitude are marked at the sides of the map; and that the length of a degree of latitude is 69^{1} English miles. When the pupils have been exercised a little in finding out the latitudes of places, and calculating their distances from the equator, they will know thoroughly the meaning of latitude, and how to find it out for any place.

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* Care must be taken to distinguish between *meridian* and *meridian-circle*, two very different things; the former being only half of the latter. Even in some geographical works of reputation the distinction is neglected, a meridian being defined as a *circle*. This is very perplexing to the learner, who finds that there are two meridians in the complete circle.

The *Tropics* may next be explained, being defined as the furthest north or south parallels at which the sun is overhead, 23½ N. or S. latitude. This involves a more particular account of what is meant by the sun's being overhead or vertical; of the torrid zone as 47° in breadth, as the part of the earth between the tropics, and the only region of the earth where the sun is ever vertical; of our own condition as to the sun's elevation in winter and summer, in the morning, noon, and evening; and of the general fact that the place is warmer the nearer the zenith (being vertical) the sun is; whence arises the high temperature which prevails in the torrid zone. Then, the times at which the sun is vertical at Cancer and at Capricorn; the several states of the northern and southern hemispheres at these times, as to season; and the leading places through or near which the tropics pass, should be pointed out. This at once conveys knowledge of interest and importance in itself, and fixes the character and position of the tropics in the mind by the associations with which it links them.

The pupil may now be instructed in the nature of *longitude*. A *meridian* should be defined as a semicircle from pole to pole, and it should at once be connected with *time*, by the mention of the fact that all on the same meridian have the same time. It should be explained that longitude is expressed in degrees, minutes, &c.; that it must be measured along the parallel of the place, the line that proceeds east and west from it; and that it is marked on the equator, or on the top and bottom of the map. The notable places should be pointed out near or through which the first meridian passes, and the same with the opposite meridian—the other half of the same meridian-circle—at which the difference of time is always twelve hours. The difference of time at different places may now be explained—15° for every hour, or 1° for four minutes, the place to the *west* of the other being *behind* the time of the latter. Finding out the longitudes, latitudes, and time of several places prove very interesting exercises, while the explanation of how the difference of time arises, and the proofs we have of this in the different times of sunset and sunrise, even at places not very far east or west of each other, prove useful for the development of the reasoning powers.*

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* Either at this stage or at some convenient opportunity the diminution of the degree of longitude as the latitude increases should be pointed out, and the pupil should be taught how to calculate distances along a parallel of latitude by means of the table, shewing the length of a degree of longitude at different latitudes; and every one should be made thus to find out the length of his parallel of latitude, and be told that that is the distance he is carried daily by the earth's rotation. Perhaps every one should know the length of the degree at the Equator, Cancer, London, and the Arctic Circle, which may be stated in round numbers as 69, 64, 43, 28 miles.

The equator, tropics, torrid zone, latitude, and longitude, and differences in time have been thus fully explained and illustrated. The teacher may now carry his pupils to the subjects of the *polar circles, day and night* at different places, and at the same place at different times, which may be made still more interesting than the preceding matter. The consideration of these subjects, however, we shall defer till our next paper.

Philosophy of Common Things.

No. I.—ANIMAL FOOD.

All animals receive the constituents of their blood and bodies from vegetables, and it is a remarkable fact that they even contain of mineral substances exactly what is required in the animal system. By organic chemistry is meant whatever relates to the organs or apparatus essential to carry on the functions of animal or vegetable life. *Exp.* By igniting a piece of straw we separate the inorganic from the organic portion. The latter is consumed, and the inorganic and mineral part is left in the shape of ash. Organic portions consist of a very limited number of elements—*carbon, oxygen, hydrogen,* and *nitrogen.** With these few elements Nature elaborates the most widely different results. Vegetables obtain these elements as their food by their roots from the soil, and by their leaves from the air. On every square inch of the inner leaf of the lilac there are 120,000 little active mouths, which take in the poisonous carbonic acid gas that animals breathe out, and, separating it, retain the carbon for their own service, and return the oxygen to purify the air for man. So active are these mouths, that a stream of air will be almost immediately deprived of its carbonic acid. *Exp.* A green sprig placed in a glass of carbonic acid will, after a few hours, be found to have converted it into oxygen, as a taper will shew. Every man breathes out 7 oz. of carbon a-day, a cow 70 oz., and a horse 79 oz.

A Lecturer may here produce before his class a tray containing 70 oz. of carbon or charcoal,† as the daily contribution of the cow towards the support of the vegetable world. This carbon, conversely, the animal receives back in vegetable diet, or when it devours other animals which have themselves fed upon grass or vegetables. It may seem extraordinary that the carbon which forms the bulky part of a plant should be taken up by it in the shape of an invisible gas. If we, however, burn a piece of solid charcoal in oxygen, it is dissipated in an invisible gas, and the office of the plant is to reverse the operation, and to restore the carbon into its solid shape. The *nitrogen* is obtained by the plant in some degree by the leaves, which separate it from the volatile substance, ammonia, which, in little quantities, is found in the air. It is more familiarly known under the name of hartshorn, having been anciently extracted from the horns of deer. Its chemical symbol is NH_3. More generally, however, this ammonia is absorbed by rain and washed into the earth, where the nitrogen part of it is separated, and enters the plant by the roots. The great importance of this element to food, in the formation of lean animal flesh, will be afterwards seen. It is very remarkable that, while nitrogen should be completely *negative* as an element of the atmosphere, merely serving to dilute it, it should give to the constituents of animal food all its nutritious qualities, and to gunpowder so much *positiveness*. The heaps of manure that we see in the fields and by the road-sides contain ammonia, and it is in ignorance of the fact how volatile it is, and how much of the goodness of the manure is lost, that we see these heaps left so long exposed. The loss of ammonia would be prevented by covering them with earth, and so shut out its escape into the surrounding atmosphere.

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* The properties of these elements have been explained in Vol. II.

† This may be procured from any ironmonger.

Hydrogen is obtained partly by the decomposition of water, which is a chemical mixture of this gas with oxygen. The oxygen which is given off from what is obtained originally by the plant through the root (for the roots as well as the leaves take up carbonic acid, CO_2) may be seen in winter, when ice shuts up plants in ditches. Bubbles of gas may be seen to accumulate, under the influence of sunshine, under the ice, which grow larger the longer that the plants are confined.

Water is also useful to the plant in a *mechanical* as well as chemical point of view, i. e., it not only separates its gases for its use, but serves important purposes in its water-shape. First, it is the channel or canal for carrying in solution, as sap, various substances which the plant wants; secondly, it moistens and imparts flexibility to the whole fabric of the plant; and, thirdly, when hot sultry weather would dry up and wither the leaf, the evaporation produces a coolness which refreshes it.

After pointing out the sources of the various elements in plants, let us now proceed to divide all animal food into two large classes—those which contain *nitrogen* in addition to the other three elements, and those which do not. Of these the *nitrogenous* only serve the purposes of *food*, the *non-nitrogenous* of *fuel*. The former are *flesh-*

producers; the latter are *heat-producers*, for the purposes of respiration, in connexion with the stoves which we all carry within us. The lungs are the bellows which supply oxygen continually to this stove. The nitrogenous part of flour is called *gluten*, the non-nitrogenous, *starch*. If a handkerchief full of flour be repeatedly dipped in water, a milky substance will be washed through, and settle at the bottom: this is the starch; and the sticky substance that remains is the gluten. Fine wheaten bread is less nutritious than bran of wheat, oatmeal, or Indian corn meal. The rice and potato, which contain only 7½ and 8 lbs. out of 100, are far less nutritious, i.e., form far less flesh, than food made of leaves, such as cabbage, mushroom, and cauliflower, which have far higher proportions of gluten. The following tables, found in "The Chemistry of Common Life," from which some of our subsequent remarks are borrowed, should be copied for the benefit of the schoolroom:—

	English fine Wheaten Flour.	Bran of English Wheat.	Scotch Oatmeal.	Indian Corn Meal.
Water	16	13	14	14
Gluten........	10	18	18	12
Fat	2	6	6	8
Starch, &c.	72	63	62	66
	100	100	100	100

	Rice.	Potato.	Plantain.	Cabbage.	Cauliflower.
Gluten	7½	8	5¼	35	60
Starch, &c.......	92½	92	94¾	65	40
	100	100	100	100	100

When we speak of starch as a component part of animal food we take it to represent the whole class of non-nitrogenous substances. In this class we must include *gum, sugar*, and all *fatty* or *oily* substances which we eat. They are all varieties of the same class, slightly differing in the proportion of the hydrogen and oxygen which they contain. Thus starch is chemically represented by $C_{12}\ H_{11}\ O_{11}$, i. e., it contains 12 atoms by weight of carbon, and 11 atoms of hydrogen and oxygen, i.e., 11 atoms of water. The elements of sugar are shewn in the symbol $C_{12}\ H_{12}\ O_{12}$.

To secure the highest degree of health as far as it is dependent on food, it is essential that it should be of a mixed character. Persons whose food consists of arrow-root, sago, or tapioca, which are all varieties of starch, would soon degenerate, and even animals made to feed on gluten exclusively have been found after a short time to die. Food that is too glutinous is consequently too nutritious, and has a costive or constipating effect upon the animal system, which must be corrected by more oily or fatty substances. On this principle cabbage requires bacon, and, on the contrary, pork is rendered more palatable and wholesome by being accompanied with pease pudding.

Collective Teaching.

1. A collective lesson differs very materially from a lecture. In the latter the children are passive listeners in the former they are lively actors. By means of questions and occasional ellipses, their minds are kept continually at work; and the teacher taking those in the class whose mental powers are least developed as his standard of simplicity, acts and speaks before the gallery, as a fellow inquirer after truth, while he leads them imprecep-tibly on the path he had previously marked out.

2. As the lesson proceeds, both the analytical and synthetical processes of investigation are brought into use. Suppose a common earthenware cup to be the subject of the lesson. The object is held up before the section seated in the gallery, and they are asked to name its parts—as the inside, outside, handle, rim,or bottom. Should any hesitation occur, the teacher does not *tell* them what he is seeking for, but, passing his finger round the part in question, he asks, "What is this?" The names of the several *parts* are then written on the black board. The *qualities* are next asked for: here the cup is passed round among the children, and they are told to look at it, feel it, or smell it, thus employing their several senses in turn. Other properties are suggested by comparing this cup with other cups; finally those qualities which render it fit for the uses to which it is put are elicited; and the whole is successively written on the black board.

3. The teacher next asks the *form* of the cup? how it became so formed? of what it is made? and how it happens that a substance so *hard* could be brought to such a form? He thus brings out from the children the fact that is made of clay, and that when the cup was made the clay was *soft*, and not hard as they now see it. Having by this mode of investigation, arrived at the *beginning* of the process by which the cup was made he shows a piece of soft clay, of the kind used for the cup, and gets the children to describe what they *think* was done *first*, and what *next*, in the manufacture of the object before them; always correcting their errors by describing the *actual* steps in the manufacture,—exhibiting specimens of pottery illustrative of the different stages, – and by means of a small model of a potter's lathe, exemplifying the process. When the lesson is given to the younger children a description of the parts and qualities occupies the greater portion of the time; but with the elder pupils these are quickly brought out, and the manufacturing processes are more particularly dwelt upon.

4. The great advantage of collective teaching is, that it brings the trained mind of the teacher into direct and immediate communication with the comparatively untrained and uninformed minds of his pupils. Hence, for the developement of the powers of the mind, for influencing the affections and directing the understanding to right views of moral and spritual truth

for checking evil habits, and encouraging good ones, the collective lesson, in the hands of a well-trained, earnest minded, and *christian* teacher, is a powerful instrument for good.

5. In order to give a collective lesson well, the teacher must not only be well acquainted with the subject he has in hand, but must have the *matter* arranged in a logical and well considered order. No collective lesson should be given until a sketch of it has been carefully prepared by the teacher for his own private use. This sketch should show the principal ideas intended to be dwelt upon during the lesson, numbered and arranged in their logical order, precisely as they are intended to be given. Under these "heads," the *manner* of bringing out each idea should be indicated; the illustrations intended to be used written down, and some of the principal questions recorded. The sketch should thus exhibit both *matter* and the *manner* of the lesson, and should realize to the reader, as nearly as possible, the lesson itself. At the end of the sketch the teacher should note down what objects or diagrams will be wanted, and have them ready before commencing his teaching.

6. The *dangers* of this method o instruction are, however, many; and mischief, as the result, is by no means uncommon. The two principal dangers are mentioned, that they may be guarded against. First. Collective teaching is not unfrequently quite *ineffective*, owing to the teacher's being contented with merely talking for a certain time. It is very easy to talk prettily to boys for half an hour, even in such a way as to interest them; and yet, owing to want of attention to some of the points about to be mentioned, no permanent result may remain. The children have been pleased, but not instructed.

Secondly. It is sometimes efficient to to only a *portion* of the boys. If the "gallery" contain boys of very different attainments, when the language and general cast of teaching is fitted for the more advanced, it is too difficult for the others; and on the other hand, when descending to the capacity of the younger, the lesson appears frivolous to the older boys.

7. The following, then, are some of the chief points to be attended to:—

(a.) Children receiving a collective lesson at the same time should be of about the *same degree of mental standing.*

(b.) The teacher should be supplied with *specimens*, *models*, or *diagrams*, illustrative of his subject. He should also, from time to time, sketched out such objects, or portions of objects, as he may find, during the lesson, require more illustration than he has provided. This, of couase, implies that the teacheris to some extent,a draughtsman. There should be large maps, too in the room or division in which these lessons are given.

(c.) A large *black board* should be placed before the gallery, for purposes of illustration, and also to receive the main headings of the lessons; so that when the teacher has finished his lesson, he may occasionally form the gallery into drafts, and by means of his pupil teachers institute a searching individual examination of all who have heard it. This use of the black board is particularly valuable in the training of monitors. Its advantages are numerous. It requires the teacher to be master of his subject, and methodical in his arrangemeut of it; and thus, by presenting the whole in the *natural association* of its various parts, tends to secure the retention of what is taught. It teaches spelling too, and the reading of written characters.

(d.) Attention is best secured, particularly with the younger pupils, by the teacher's making a pause, and then leaving some of the words to be supplied by the pupils. Thus:

Teacher. — The feet of the camel are——

Pupil.—Broad.

Teacher.—And——

Pupil.—Spongy.

Teacher.—And——

Pupil.—Spreading.

Teacher.—And therefore the camel is fit for travelling on——

Pupils.—Sands.

Teacher.—It is used in——

Pupils.—Africa.

Teacher.—And——

Pupils.—Arabia.

Teacher.—And——

Pupils.—Persia. —

Teacher.—And——

Pupils.—India.

Teacher.—Many of them travelling together are called a——

Pupils.—Caravan.

The teacher must, however, take care that no ellipsis is left for the pupils to supply with words or facts they cannot be expected to know. Thus, "The olive tree lives——" if he finds that no pupil is acquainted with the fact wanted, he should tell it himself, rather than allow the mischievous habits of guessing. After he has told them, he should again make the ellipsis, which would of course be supplied by the pupils.

Repeating the ellipses to this extent however, and so closely following each other, are not admissable in practice, except for the purpose of recapitulation; the better plan is to have many questions and few ellipses.

(e.) There should be much *individual questioning.* This is one of the ways in which the real efficiency of a lesson can be tested. The eye of the teacher should pass rapidly over the gallery, and wherever he detects inattention, a question to the individual should be put, on something that has just been taught. This recapitulatory individual questioning should follow every class of facts stated.

(f.) A habit of *induction* should be cultivated. Thus, when the teacher has said that the elephant has a very large head, and two very heavy tusks, he should lead the pupils to *tell him*, though they may not before be aware of the fact, that the neck must be short, and the cartilage and muscles very strong. So, when he has told them of the great quantity of vegetable food the animal eats, he might say, "Do you think it is found, then, in hot or cold countries?" If not answered, he would say "Where do grass, and herbs, and trees grow most abundantly?"

Pupils—In hot countries.

Teacher—Then as the elephant eats so much of this kind of food, in which do you think he is found?

Pupils—In the hot countries.

Teacher—Why?

Pupils—Because most of his food grows there.

(g.) The whole should be conducted with *animation.* The want of this shows itself by a very slow enunciation of words, by long pauses between sentences, and by a want of ease in the carriage of body. Not unfrequently, also, teachers are too wordy; every word that does not tend to make the thought clearer makes it more obscure.

(h.) *Simplicity* is indispensable. The absence of this quality shows itself sometimes in the use of language and illustrations that the pupils cannot comprehend; and sometimes in assuming that their knowledge is greater than it is. The constant use of individual questioning will enable the teacher to discover when he is thus shooting over pupils heads.

(i.) The *time* of the lesson must not be prolonged, after the children are evidently wearied out. With a judicious teacher, even the younger may be interested for half-an-hour, and the elder for a longer time.

8. The notes on the black board may either be written as the lesson goes on or (which is preferable) the teacher may bring out all the points under one head first, and then put down the notes on the board while recapitulating *that part* of the lesson; sometimes writing from the dictation of the pupils; and then, of course, correcting their errors, both of fact and language. At the end of the lesson there should be a general recapitulation of the whole from the black board.

If the lesson were the elephant, the black board should present an appearance at its close somewhat similar to that exhibited in the specimen lesson given in the next page. The words in italics would be on the black board be underlined; those in capitals be doubly underlined.

—*Hand-Book to Model Schools.*

SPECIMEN OF NOTES FOR A COLLECTIVE LESSON.

THE ELEPHANT.

1. Description. — *Thick skinned. Height*, 7 to 12 ft.; *weight*, 5,000 to 6,000 lbs. = 40 men. *Head*, large hollow in front. *Tusks*, 2, ivory and enamel; 5 to 6 ft.; 100 to 150 lbs. *Teeth*, $\frac{22}{22}$ 8 molars—structure: mode of growth renewed. *Trunk*, 6 to 8 ft. long; finger, thnmb, hand—*uses*, obtain food, convey to mouth, lift objects. *Neck*, short, thick muscles, and pax wax very thick.

2. Kinds.

Asiatic—head long, front somewhat concave—4 *hoofs* on hind feet—*ears* small.

African—head rounder — 3 *hoofs* hind legs—*ears* larger, 3½ feet by 2½ *use* carry manure—not now tamed.

3. Where Found—*Asiatic*. Hindostan, Burmah, Ceylon, and S. of Asia generally.

African. Africa, South of Senegal.

4. Habits. *Social*, 3,000—*herbivorous* —2 or 3 cwts., browse soft roots—(sweetmeats, sugar-canes) — *gentle*— *fond of bathing*— sprinkle dust over himself (flies)—*cautious* in going over new ground or bridge—*sagacious*.

Uses. – Food (African) — ivory— carrying and drawing, man on neck, goad—war—hunting.

[It is better to write on the black board only the words indicating the principal ideas, leaving the rest to be supplied by the children from memory during recapitulation.]

Notes of Lessons.

BIBLE LESSON.

1. SAMUEL XXIV. 4.

I. *Introductory circumstances.*

Before going into the description of the narrative under consideration, it would be found necessary to give the children some idea of the context or of the events which preceded or led to the circumstances about to be described.

I would then endeavour to get out from the children, that Saul was David's bitter enemy—that David was a fugitive, and hourly in danger of his life from Saul and this too without any just cause or ground, on the man's part, whose life he sought. The children should also know that Saul, had actually, made deliberate attempts to deprive David of his life, and when these facts are noticed, proceed to a vivid picture of the event.

II. *A vivid picture of the transaction.*

(1.) In this part, try to get the children to realize the scene before their minds—endeavour to make them fancy they see the cave in which David is hid, and the entrance of Saul.

(2.) Notice the object for which Saul came to these parts and the means which he took to accomplish the object. He came out to seek David upon the rocks of the wild goats, accompanied by three-thousand chosen men out of all Israel.

(3.) Bring out that David's men strongly urged him to avenge himself by taking away his enemy's life. David however, to appease them, cut off the skirt of Saul's coat, but his conscience smites him for doing even so little a thing as that, to the man who has so often sought his life.

(4.) When Saul leaves the cave, David stands and exhibits the piece cut off, just to show his enemy he had no ill will towards him, but loved him and to endeavour if possible by this means to show Saul, how unjust the persecution was, and to induce him thereby to give up the pursuit and to be reconciled to him.

(5.) The act of mercy on David's part, has the effect of causing Saul to acknowledge his fault and induces him to confess how unjustly he has acted, and how mercifully David behaved to him. From these circumstances we may deduce—

III. *The Lesson.*

(1.) To love our enemies—to reward evil with good and also to overcome evil with good.

(2.) We may also learn that the best way to disarm our enemies, is to show them, that we do not take advantage of them when we have it in our power. It will then cause them to feel ashamed and will turn their hatred into love. W. S.

NOTES OF A LESSON ON A FISH.

(Object Lesson.)

The adaptation of certain parts of its structure to its mode of life.

I. *The Head.*

Introduce the subject of the lesson by a few simple questions to the children, as for instance, "whether they have seen a fish" and where. A specimen of a fish should now be produced, or else one drawn on the black board, in order to facilitate the object of giving such lessons.

Next get the children to notice the difference between their own heads and the head of a fish. Our heads are round, but the heads of all kinds of fish are sharp and pointed—why is this? Get the children to notice that when a person swims, his head is above water, but a fish swims with its head in the water; so we have now got two differences, and we must try to find out why the fish swims with its head in the water, and why a fish has a sharp head.

In order to do this, get the children to understand that a fish in swimming has to part the water or to divide the water in two—it has to cleave the water, or to divide the water to make a passage for its body to pass through. Now when we divide or wish to cut any thing in twain, what are the best things to do it with? The children will readily discover that sharp instruments will cut best. Instance—whether best to cut bread or a piece of wood. with a sharp knife or something which is blunt?

Next get out from the children, what part of its body a fish uses to cut the water with; or what part divides the water for its body to pass through, the head. Now these things which are sharp, are best to cut or divide with, and you have told me, that a fish uses its head for that purpose, now what kind of a head would suit it best? A sharp head.

Accordingly God, who made the fish, has given it a sharp head, which it requires.

II. *The skin.*

If we look at the skin of a fish we shall find it to be composed of numbers of scales which are exceedingly smooth. [This the children will readily know if they have ever handled a fish, so smooth as to fall out of their hands.] Why has the the fish a smooth skin? Get out the children's ideas, about smoothness, and show that by having a smooth skin, the fish is able to swim much swifter and easier.

Illustration. — Children sliding on the ice, because the ice is smooth, and they thus glide along; they could not do this on the rough dry ground. For a similar reason, a fish has a very smooth skin and thus it can *glide* through the waters much more easily. Men have applied the principle to boats, and given their boats and ships smooth sides and sharp heads.

III. *The Tail.*

(1.) Notice why the tail is upright and perpendicular and not flat. The fish uses its tail for what purpose? To beat against the water on each side of of it; in which way would the tail do this best? when it was upright or when it was flat?

Illustration.—A man wants to stop a current, and he has in his hand a square and flat piece of wood; how would he use it?

(2.) Notice how the tail serves the fish the purpose of a rudder, by turning its tail about it can change its direction.

(3.) Notice that the tail helps the fish to swim faster; its motion to and fro sends the fish along.

Illustration.—A boy sitting in the stern of a boat with an oar, moving the boat by what is termed sculling.

W. S.

NOTES OF A LESSON ON A SUCKER.

How a common sucker lifts a stone.

I. *Introduction*

Introduce a sucker, before the children's notice and ask a few familiar questions of them respecting whether they have used one, in order to get their attention and to secure their interest in the after-proceedings. [I should mention here where practicable, the teacher might produce a sucker and stone for experiment.]

II. *The way the Sucker acts in sticking to the stone.*

Now get out from the children what they take to form tha sucker; they will tell you a piece of string and a piece of leather. Why should leather be used? Would not a piece of wood, or metal do? From this show them that the sucker must be *flexible*; obtain from the children the fact, that the sucker will not stick to the stone, if the sucker is dry; why is this? It must be wetted, thoroughly saturated with water.

Now endeavour to excite the children to think and to give you a reason why the process of wetting is necessary. To do this, you must use analogy. If you take a piece of dry paper and put it against a wall it falls, but wet the paper, and for a few seconds it will stick to the wall. Account for this. Furthermore, notice the fact, that two pieces of lead, if rough will not stick, but make them quite smooth, and if pressed they will adhere very closely. From these, try to show that when the two would not join, it was owing to some body or something being between. Get out that there was air between, and that the wetting managed to drive out the air, and that therefore the sucker would stick to the stone.

Sometimes, boys who wet a sucker, cannot make a sucker stick, because they have let the air in.

III. *Why the Sucker lifts the stone.*

When the boy pulls the string, he finds that the sucker rises up in the middle but sticks close to the edge. He pulls the string up and with it the sucker, but the sucker is determined to stick to the stone and he thus lifts the stone; but why does the sucker bear up the stone which is very heavy?

In this part of the lesson obtain from the children, that the air presses equally in every direction—it presses upwards and downwards, and the downward pressure, just balances the upward pressure. But in our sucker there is no air, for by wetting it we have driven out the air, and so there is no upward pressure, to resist or counterbalance the downward pressure, and in this way, the whole of the air above the sucker, presses the sucker to the stone with a force of about 15lbs, to every square inch of the sucker, and thus the sucker lifts the stone. W. S.

CERTIFICATES OF MERIT.

CLASS LIST of Students in Training Schools connected with the Church of England, to whom Certificates of Merit have been awarded by the Committee of Council, after Examination before her Majesty's Inspectors, at Christmas, 1853.

MALES.

Training School.	No. of Candidates.	1st Class.	2d Class.	3d Class.	Total Certificates.
Battersea..................	84	3	33	31	67
Carmarthen	27	1	3	14	18
Carnarvon	10	1	2	5	8
Chelsea, St. Mark's.........	59	1	16	25	42
Cheltenham................	59	8	21	16	45
Chester....................	18	..	12	6	18
Chichester.................	9	..	5	2	7
Durham....................	16	1	7	8	16
Exeter.....................	25	2	9	7	18
Kneller Hall...............	44	2	11	24	37
Highbury..................	39	..	8	13	21
Oxford....................	35	1	13	19	33
Winchester................	18	1	6	8	15
Worcester..................	23	..	6	12	18
York and Ripon............	36	1	7	14	22

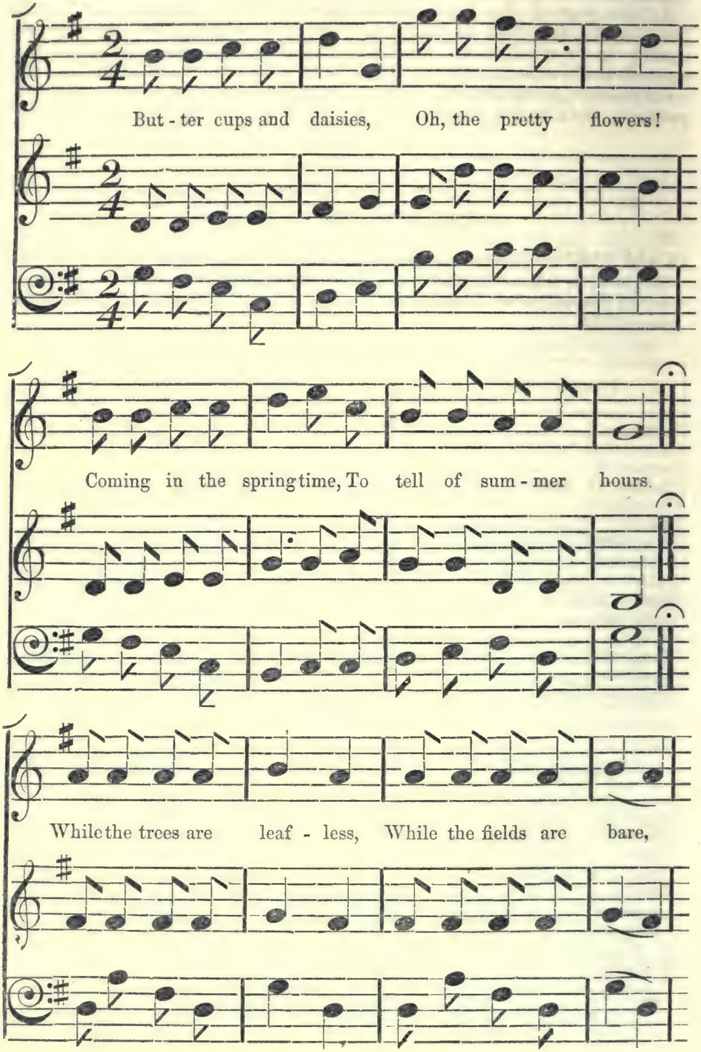
FEMALES.

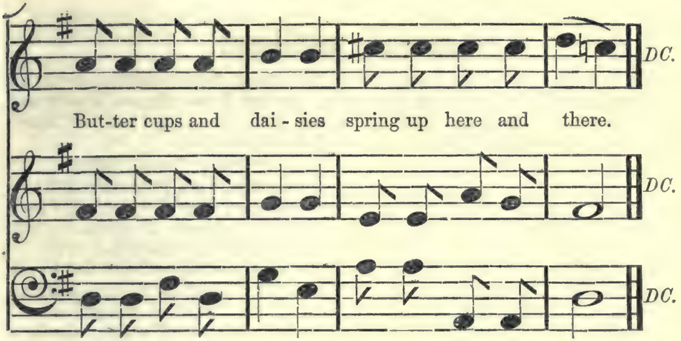
Training School.	No. of Candidates.	1st Class.	2d Class.	3d Class.	Total Certificates.
Brighton..................	6	..	1	4	5
Cheltenham................	54	2	15	14	31
Derby.....................	24	..	5	8	13
Home and Colonial.........	59	1	18	23	42
Norwich...................	10	..	6	3	9
Rochester.................	12	1	5	6	12
Salisbury..................	33	1	7	10*	18
Warrington................	25	..	8	10	18
Whitelands................	70		27	30	62
York and Ripon............	12		3	4	9

* Two out of these 10 came for examination from the Truro Training School.

Buttercups and Daisies.

MARY HOWITT. *Old Air.*


2/4
But - ter cups and daisies, Oh, the pretty flowers!
Coming in the spring time, To tell of sum - mer hours.
While the trees are leaf - less, While the fields are bare,



2*nd.*

Buttercups and daisies, like to children poor,
Playing in their sturdy health, by their mother's door;
pp { Purple with the north wind, yet alert and bold,
Fearing not and caring not, though they be a-cold.
Chorus—Buttercups, &c.

3*rd.*

What to them is weather! What are stormy show'rs!
Buttercups and daisies are these human flow'rs.
pp { He who gave them hardship and a life of care,
Gave them likewise hardy strength and patient hearts to bear.
Chorus, *ff*—Buttercups, &c.

4*th.*

Welcome, yellow buttercups, welcome, daisies white!
Ye are in my spirit, visioned, a delight:
pp { Coming ere the spring-time, of sunny hours to tell,
Speaking, to the heart, of Him who doeth all things well.
Chorus, *ff*—Buttercups, &c.

Educational Intelligence.

The following reply to the memorial of 725 Church Schoolmasters, presented to the Committee of Council on Education, by the Revs. Canon Mosely, and W. J. Kennedy, has been sent to the Secretary of the Associated body of Church Schoolmasters, by which body the memorial was drawn up.

"Privy Council Office,
"London, 13th February, 1854.

"Sir,—We are happy to inform you that we had an interview with the Lord President of the Council on Saturday last, for the purpose of presenting the Memorial signed by 725 church schoolmasters, which you transmitted to us.

"The Lord President listened most kindly to what we respectively had to say in support of your petition for a superannuation fund, and for the appointment of schoolmasters under the Committee of Council on Education to organize and improve schools. We also read that part of the Memorial which asks for a prescribed list of text-books for examinations for certificates, &c.

"The result of our interview may be described as follows:

"First. Respecting a superannuation fund for teachers, we are happy to inform you that we understood the Lord President to express himself in favourable terms, and to state that a sum of money was already set apart for that object, and some progress made in maturing a scheme on the subject.

"Secondly. With regard to the appointment of masters under the Committee of Council on Education to organize and improve schools, we understood the Lord President to say, that the subject was new to him and that he would take it into consideration.

"Thirdly. Respecting the settlement of definite lists of text-books for examinations, we understood the Lord President to state, that he thought the Committee of Council on Education were not disposed to take upon themselves to prescribe particular books.

We shall be obliged if you will kindly make this communication known to to the body of the Memorialists.

We have the honor to be, Sir, your obedient faithful servants,

"Henry Moseley,
"W. J. Kennedy.

"To Mr. J. J. Farnham,
Trinity District Schools, St. Marylebone, London."

DERBY AND DERBYSHIRE CHURCH OF ENGLAND SCHOOL MASTERS' ASSOCIATION.

The usual Quarterly Meeting of this Association was held in the National School-room, Curzon St., Derby.

On this occasion the Association was favoured with an admirable lecture on "Teaching Mathematics to Pupil-teachers," by the Rev. W. F. Wilkinson, Vicar of St. Werburghs, Derby; who in an able and interesting manner, suggested many valuable hints on teaching Arithmetic, Algebra, and Euclid to Pupil-teachers; so as to prepare them to pass their annual examinations, as also those at the end of their apprenticeship for Queen's Scholarships, and, eventually to qualify them as teachers of these sciences when appointed to the charge of schools.

The Rev gentleman, in the course of his lecture, spoke in high terms of a small book recently written by one of the members of the Association, Mr. Bland, Little Eaton, on "Teaching Notation to Children," price one shilling, a very valuable little work, worthy of the notice of all teachers; and also recommended for the use of teachers the Arithmetic and Algebra by Dr. Colenso, and Potts' Euclid.

At the close of the lecture, a resolution was passed to solicit the assistance of the friends of Education towards the formation of a Schoolmasters' Library, which shall belong to the Association, and which shall comprise a copy of each of the books recommended to schools by the Committee of Council on Education, some of those by the National Society, and a few others. The members are also desirous to purchase a set of Philosophical and Chemical Apparatus for the use of the association, and circulars are being prepared to place before the public.

GEO. TURNER,
Corresponding Secretary.

NOTTINGHAM AND NOTTINGHAMSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The quarterly meeting of this association was held at Newark, March 11, at the Christ Church schools. A paper was read by Mr. Cockrew of Senton on the "Position of the Schoolmaster." The subject was viewed in the following manner. The schoolmaster's own position, its requirements, difficulties, pleasures, and rewards. His social position with respect to his scholars, their parents, the school-managers and society at large. The paper was entirely approved of by the meeting and will be published. In the afternoon the "Training of Pupil-teachers was put forward by Mr. Askew as a subject for discussion. Much valuable practical experience was elicited from the members, and the utility of several proposed plans was well considered.

At any of the quarterly meetings any member who may have encountered any difficulty in the course of his studies can propose it for the consideration of the other members during the interval between that and the next quarterly meeting.

For the convenience of the members residing in different parts of the county the meetings are held successively at Nottingham, Newark, and Mansfield provided there are sufficient members in the locality of the two last named places, to warrant this arrangement.

R. THURLOW, Hon. Sec.

THE ANNUAL REPORT OF THE CHURCH OF ENGLAND SCHOOL MASTERS' ASSOCIATION FOR THE DEANERIES OF SHOREHAM AND SOUTH MALLING.

Patron.—His Grace the Archbishop of Canterbury.

At the close of the first year of the "Sevenoaks Church Schoolmasters' Association," the committee present to its members and friends the Annual Report of the proceedings. They have the satisfaction to announce that since the formation of the association in January, 1853, it has steadily increased in numbers, thirty-six having been elected members during the year.

At the monthly meetings papers of an educational character have been read, and subjects of a similar nature discussed; from which much valuable information has been diffused among the members, and many valuable hints thrown out, upon matters connected with education. Papers have been read, and discussions taken place upon the following subject:—

On "The best method of punishment for preventing immoral conduct in church."—Mr. Williams.

On "The best method of obtaining regular attendance at school."—Mr. Harding.

On "The difficulties and encouragements of Schoolmasters."—Mr. Bowen.

On "Silence in school."—Mr. Stidolph.

On "Teaching Etymology."—Mr. Bowen.

On "Teaching Orthography."—Mr. Sargeant.

On "A Bible lesson."—Mr. Stidolph.

On "Corporal punishment."—Mr. Sargeant.

On "The influence of love in teaching."—Rev. R. Vincent.

On "Home lessons."—Mr. Bowen.

The committee take this opportunity of thanking those gentlemen for the valuable service they have rendered, and they trust that those who have not yet contributed to the papers or discussions, will during the ensuing year perform their part in this work of educational improvement.

During the past year valuable donations of books have been given to the association by the Society for Promoting Christian Knowledge, and by the Committee of Council on Education, and also by the Rev. T. O. Blackall, for which the thanks of the association were duly given. Part of the funds of the association have also been devoted to the purchase of books and educational periodicals.

In conclusion, the committee, whilst they thankfully acknowledge that a large measure of success has attended the working of the association, sincerely trust that the support and liberality of its friends will still continue, convinced as they are that the work of education will be materially advanced under Divine providence, through the instrumentality of such associations.

J. F. Bowen, Hon. Sec.

LEICESTER AND LEICESTERSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

At a General Meeting of Schoolmasters and others held on the 21st of January, 1854, the Rev. E. Smythies, Curate of Hathern, in the Chair, Rules were drawn up and agreed to, and eight Schoolmasters were elected members of the Association.—

The Rev. E. Smythies was elected President for the current year; the Rev. E. J. Rose, Old-Dalby, Vice-President; and Mr. Taylor, Melton-Mowbray, Secretary. The following four members were chosen by lot to read papers on subjects connected with the question of Education for the current year, viz: Messrs. Baugust, Hodges, Robson, and the Rev. E. Smythies. The Next Meeting will be held on April 8th, when the Rev. E. Smythies will read a Paper on the "Advantages and Disadvantages of Mixed Schools."

The Association has been formed with a view to promote the cause of Education in this County, and to offer greater facilities of intercourse amongst the Clergy and Schoolmasters interested in this question.

William Taylor, Secretary.

NOTICES OF BOOKS

Hand-book to Model Schools.—Sold at the Repository, Borough Road, and by Sunday School Unions.—One of the greatest wants felt by Teachers, just now, is that of brief and clear expositions of the plans pursued in good schools, with the principles on which those plans are based. We have in the English language no very extensive collection of educational works of any description, and in those we have, the preponderance is greatly on the side of theory, and the *proposed* plans of amateurs. The demand is however, for practical works, —expositions, not of what is conceived *might* be done, but what actually *is* done in a particular school, with a given class of children.

Model and Practising Schools especially owe this, both to the public and their students; and there are, here and there, common elementary schools, with the ordinary class of children, and the usual staff of teachers, that stand so distinguished for their excellence, as to make us wish that their simple and effective working could be more generally known. Books of this character need not be large or expensive; a sixpenny or shilling pamphlet would contain what was essential, and being within the reach of all elementary Teachers, would command an extensive sale.

The *Hand-Book* before us is explanatory of the Methods of Instruction adopted by the British and Foreign School Society, This is not a new edition of the "Manual," but a new construction written up to the latest improvements. Its character is contained in the word "explanatory"; that is, it gives a clear account of the organization, and as much explanation as is thought necessary to a full comprehension of any part of school arrangement or method.

The contents are arranged in four chapters in the following order.

Chap. I.—Fittings and organization; viz. school fittings. sections and drafts, slassification for reading, writing, and for other studies.

Chap. II.—Agency employed; viz. pupil teachers and monitors.

Chap. III.—Methods of instruction; viz. general principles, preparatory section, collective teaching—Reading, interrogation, spelling, writing, arithmetic, grammar and composition, miscellaneous lessons, drawing and vocal music.

Chap. IV.—Scriptural instruction.

The appendix contains sections with time tables and explanation, explanation of school changes, Register and report books, and questions to test a school.

The contents just given should be sufficient recommendation, and as we propose to insert in the present number the section on Collective Teaching we shall only add that the Hand-Book is worth the attention of all persons engaged in elementary schools, and will abundantly repay the trifling cost of purchase.

Child's First Book of Geography (Gleg's Series) by W. Hughes, Longman and Co. This little work "is intended mainly as an introduction to the two previous volumes of the author in the same series." The earlier part is especially good, laying by the synthetic method, a sound foundation for an effective course. First ideas are clearly worked out, and very neatly illustrated, ; whilst as much of physical and descriptive geography is given aa will suffice for the present wants of ordinary elementary schools. The simplicity and correctness of this "First Book" commend it for general use.

Series of Sketches for Lessons on the Sabbath—by E. Coghlan. Groombridge and sons. These sketches are six in number, and done by the hand of a master. Besides their value as Notes of Lessons on a subject so necessary to be dwelt on in puplic schools, they are specially interesting as examples of the construction of notes by a master of acknowledged merit.

Arithmetical Exercises.—By J. Short, Darton &. Co. Holborn Hill. These exercises are printed on a large sheet for the instruction of junior classes in the elements of number. Besides examples of the several kinds of numerals in common use, there are given, numbers divided by vertical and horizontal lines, to show the exact place and value of each. The most marked peculiarity is the use of short strokes in connexion with each figure, that should the learner happen to forget the exact value of the digit, he may regain it, simply by counting. The idea is a good one, and will we think be serviceable in giving "First lessons in number."

New School Exercise Book.—Tallard London. This is a ruled book for entering "Bills of Parcels." Its recommendations are,—it is ruled with faint lines, so as exactly to meet the necessities for entering, and the first page contains a model entry in full.

Hints on Teaching Notation.—By W. Bland, Eongman and Co. Mr. Bland has embodied in the "Hints" for the benefit of teachers and monitors, the methods which he has found to be attended with the most satisfactory results. These methods have especial reference to teaching to little children the first steps of notation. Our opinion of the method coincides with that of the Rev. Chaplain of the Derby Training College, "it is so simple that any teacher may use it, and every child of ordinary capacity understand it; I have seen it in operation in the school, and can bear testimony to its success."

National Education with Religion and without Rates.—By W. F. Wilkinson, M.A —The pamphlet which is published under this title is a reprint of an article that appeared in one of the public periodicals. It proceeds from an able pen well versed in matters of educational interest. It is candid in its statements (a rare qualification in matters of controversy), clear in its exposition, and distinct in its logic. Without committing ourselves to all its conclusions, we recommend it to every one who needs a history of the educational question belonging to the present day, written by one who, thoroughly understanding the predilections as well as the real wants of the nation, is able to appreciate what is required for the one, and to canvass what is counter to the other.

Correspondence.

SIR,—Before answering the inquiries of T. W. in last month's Paper, it will be advisable to examine his assertions.

1st, He says, "It is a well known fact that the carbonic acid gas which we exhale is inhaled by the leaves of plants, and *forms woody fibre.*" Though carbonic acid is inhaled by plants, it is not retained as such, but is decomposed by the vital action peculiar to themselves, into carbon and oxygen, the former entering into the composition of the plant, not directly as woody fibre, but as an element which *assists* to form that body; the latter returning to the atmosphere.

2nd, We read "in winter, when there are no leaves on most trees, there is more oxygen in the atmosphere than in summer, when the trees are clothed in verdure." This is decidedly wrong; the carbonic acid is subject to a little variation, but the oxygen has always, in all seasons, under every temperature, been found in the same proportion. Professor Fownes, in his Actonian Prize Essay, says, "Air from the summits of Mont Blanc and Chimborazo, from Egypt, from London, from Paris at the level of the Seine, and at an elevation of 22,000 feet exhibited the same proportions of oxygen and nitrogen."

There are several reasons for this equal distribution of the elements of the air. The first and principal cause is, *the diffusion of gases.* When two gases which have no chemical action on each other, as carbonic acid and hydrogen, are so arranged that the vessels in which they are contained communicate only by a small tube, it is observed after some time, that even if the heaviest gas was placed at the bottom, perfect mixture has occurred, and they will be found in similar proportions in both vessels.

Again, winter, the season "when there are no leaves on the trees," does not pervade the whole earth at one time, and while we complain of cold, our antipodes, enjoying their summer, and their vegetation is in full luxurianee, and performing all its functions. The winds, which seldom prevail for a very long time in one direction, also lend their assistance to the diffusion of each principle.

Your correspondent infers that the condensation of air causes an increase of oxygen; this is by no means the case; oxygen, nitrogen, and carbonic acid are all condensable nearly in the same degree, and consequently change their bulk, but not their proportion.

I have endeavoured to answer the question as clearly as possible, and hope I have been successful, and that the information given will be of service.

Liverpool, Feb. 18th, 1854. CHEMICUS.

SIR,—I should like to present my respectful thanks to Brother Nescius for the able manner in which he has answered the question respecting the excess of exygen during winter.

The accuracy, clearness, and simplicity combined with the solution of the query above mentioned, has called forth the approbation of all the masters within my little circle, and no doubt of numbers without.

I have always been a little perplexed on the following point, which in all probability five minutes thought from friend Nescius would thoroughly clear up; and for which I should feel greatly obliged.

Query:—Why the atmosphere just before rain falls, and when it appears to be charged with superfluous moisture, or vapour, is lighter (as indicated by the barometer) than just before (say the day before) when it was clear and fine. And moreover it must contain the night's evaporation.

I reason thus:—I take for instance a column of air on a given base,—say an inch square: that column may be 45 miles long, more or less; then, I think if this column of air becomes rarefied it may increase in *length*, but not in *bulk*, (for I suppose it to be hemmed in on all sides by air as dense as itself); then the question arises with me why is it not so heavy as before rarefaction, and the addition of moisture.

That it is lighter is a well known fact to every body; but why it is lighter is an unknown fact to me. G. H. H.

SIR,—I consider that the Lord's Prayer cannot be explained to children under six years of age; but I know an examiner who asked such children questions on it, and was not satisfied because they could not answer them.

I should be much obliged if you would allow this to appear in your valuable papers, that I may learn the opinion of your numerous correspondents on this point.

J. R.

SIR,—Will you allow me to make a few remarks by way of correspondence upon my own ideas concerning the necessity of corporal punishment, with the hope that they may be useful to my fellow-teachers.

There are some who imagine, at least, they work upon the belief, that kindness alone is sufficient to establish their own authority and maintain order in their schools. These are well intentioned it is true, and have the good of their pupils at heart, but they are deficient of an element which is essential to every efficient teacher. On the other hand and here we have the majority, we find the principle of kindness unknown in many schools; discipline is maintained but it is hollow and unhealthy, and almost perpetual flogging is required for its support. In both cases we see a defect, and by combining them we learn that there must be two principles at work;—viz. those of *love* and *fear*; or to borrow an illustration from your valuable papers, the government must be similar to that exercised by a magistrate.

The question then is this,—How are these two principles to be kept constantly at work in a school? It seems natural to infer that the means adopted must be *mild* and yet at the same time *firm*. The teacher must let his children see that love is at work for them in his breast, while at the same time he must be strict in having his commands obeyed.

It must seem evident to the minds of all (at least upon due consideration) that some kind of punishment is necessary for the maintenance of the latter principle of fear; and since *corporal* punishment is the most effectual (generally) and the most expeditious, it is therefore *the best*. The punishment, however, should be so administered that the principle of love may be also seen at work by all the children, to whom its necessity might be made evident by a gallery explanation of the passage. "Whom the Lord loveth he chasteneth."

T.

[Our correspondent is referred to an extract in this number, and to Vol. I., p. 189, for our own views. The fear of animal pain may be more expeditious; but the fear of grieving a kind friend and master will be far safer and more effective.—ED.]

EXTRACT.

But we come to the *second* period of education. From childhood we pass to boyhood and girlhood. And first and foremost I maintain that in a Christian land, education should be a religious education; but in using this phrase, I would not have myself identified with those who are content to take up very loose notions of the term. There are many truths of religion which a child is very soon able to understand—but religious instruction is not religious education. We have already said that in the first period, religious feeling must be awakened through the filial instinct, and at a later period we must not abstract the mind of the child from the parent, but through love and confidence and reverence towards the earthly parent, enlarge and educate the capacity of the heart to exercise these Christian virtues towards their Father, who is in Heaven. Christ in his love to man and sympathy with the child—Christ in his life and character—will interest the mind, and the mysteries of his flesh and death, need not be kept back from him by reason of their sublime mystery, for they are alike sublime to the loftiest intellect and the tiniest child. Besides, the innocence of childhood makes it most capable of unquestioning simple *Faith*. And as for *moral* training—if indeed it can be a different thing from *religious*, I give but two directions, and they are these:—First, withdraw your children from teachers who are naturally morose and "hate children,' who will mistake for crime the healthful ebullition of natural spirits, which should not be crushed under the hand of terror, but guided by that of sympathy and forbearance. To this end education, as with infants so with boys and girls, should embrace the play-ground, within which the real educator will delight to become a child with a child, and a boy with a boy. *Secondly*, avoid to treat a boy as a dog, or, in other words, until he is insensible of appeals to his nobler nature as a boy, keep the scourge and the ferrule for the kennel. Punishment for misdoing should consist in the moral sense of disgrace, rather than in the animal sense of pain. Pain is cheap to a brave boy who without flinching makes his secret appeal to the sympathy and admiration of his compeers. Corporal punishment, when anything good is left in a boy, breeds a reckless temper, defying the pain, in the bold, and depresses and quenches the spirit of a becoming self-esteem in the more gentle. *The spirit of work* is a spontaneous spirit, and where the spirit of work is wanting, that school is a bad one. The life of a good school is the *ingenuus pudor*, but it is a delicate flower that cannot flourish where the ruling principle is fear. In its stead the educator's weapon for the refractory should be the sympathy of his school secured on his own side, and the stoutest heart of the boldest boy will quail before a look of displeasure backed by the approbation of his own peers.

The moral training of boys in our public schools, we fear, has been too much characterised as hopeless, and external discipline has been, as a consequence, maintained by corporal chastisements. But if children can be brought up in a family without those corrections, which is regulated by religious principles, why may not a school? Of one thing I am sure, that if what should be aimed at can be brought about, it must be by reforming our ideas of religious education. In religion, as in other subjects, we have been teaching *words* instead of *things*, sounds and not realities. To make the love of God a reality, we must connect with His Name everything that is lovely, and worthy of loving veneration. This feeling must be laid deep in the mind of a child, underlying his whole system of future thought before we dare to present Him in His severer dispensations. Terror produces hate, disguised, if not expressed, in every sphere within which it operates; and who can tell how much to early false ideas of God is owing that thraldom under which many timid temperaments have sunk, and on the part of the bold that loosening of all religious restraint whatever.

Co-ordinately with this exhibition of the parental character of God, the parent and the teacher should seek to develope the higher principles of a boy's nature by surrounding him with that "love which casteth out fear." But is that course generally pursued in the education of Christian youth? The ideas of God are often those of an Avenger, and the human system of treatment subordinately partakes of the same character. Severity begets terror, and terror takes refuge in falsehood and cunning, those vices of a slave, and every bud of future nobleness is hopelessly blighted. The education that is based upon terror, it will be easy to see, may produce intellectual benefit, but it must be at the cost of the moral character. Reared under an atmosphere of terror, first among the hobgoblins which haunt most Christian nurseries, and children's most quick imaginations, and afterwards under the lash of the school, no wonder that the nobler impulses of humanity wither and die, or exhibit in after life the misery of the blighting and and scathing process they have survived.—"*From Lecture on Education by Rev. C. H. Bromby.*"

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1853 *(FEMALES)*

SCHOOL MANAGEMENT.

Three hours allowed for this Paper.

SEC. I.—1. What combination of letters present tke greatest difficulty to children learning to read and spell? By what exercises are those difficulties best surmounted?

2. State briefly, but precisely, the method of teaching good penmanship.

3. Make out an exact list of the apparatus required for an Infant School.

4. Describe the attainments, and mental development of an intelligent child of 6 years who has been educated in a good Infant School.

SEC. II.—1. What exercises are best calculated to make children observe objects closely, and to describe the impressions derived from them with accuracy?

2. By what exercises is the faculty of memory most effectively strengthened?

3. What are the chief objects of collective lessons as addressed respectively to—

Infants, Children from 7 to 10.
Children from 10 to 13.

SEC. III.—1. Describe the most perfect organization of a Girls' School with 100 children between 7 and 12 years old with an accurate plan.

2. What number of hours ought to be given weekly to each subject of elementary instruction in each division of such a school?

3. To what extent may rewards or punishments be admitted, and on what principles should they be distributed?

Supplementary.—Write an essay on *one* of these subjects:—

By what principles should the teachers be guided in developing the mental faculties of children between two and seven years of age?

The same question applied to girls from 7 to 12.

Upon what qualities in the teacher does the moral discipline of a school mainly depend?

On the use or abuse of emulation as an intellectual stimulus.

Show the connection between mental and moral habits, and their mutual action and re-action.

ARITHMETIC.

Three hours allowed for this Paper.

Sec. I—1. Subtract 5785 from 8109, and explain the principles on which the operation is performed.

2. Divide 57810 by 69, and explain the working.

3. Explain the method by which you would give very young children ideas of number.

Sec. II.—1. If a spoon weighs 15 dwts. 11 grs.; how many dozen of such spoons can be formed out of 123 oz. 9 dwts. 1 gr.?

2. A field of 16 acres produces 440 bushels of wheat: how much is that upon every 22 square yards?

3. A man spends 12 guineas in 35 days and saves £100 a year: what must he earn in the year?

Sec. III.—1. Find by practice the value of $548\frac{7}{11}$ cwt., at £1 17s. $3\frac{3}{4}$d. per cwt.

2. Make out a bill for the following articles:—

156 yards 1 qr. 3 n. of Poplin, at 6s. 3d. per yard;
48 yards 1 qr. 1n. of Jaconet, at 1s. $5\frac{1}{2}$d. per yard;
117 yards 1 qr. 1 n. of Crape, at 5s. $1\frac{1}{2}$d. per yard.

3. If 27 men cut down 108 acres of grass in 5 days working 10 hours a day; how many acres would 16 men cut down in 9 days working 12 hours a day?

Sec. IV.—1. Explain the terms *interest*, *amount*; and find the interest of £111 11s. $11\frac{1}{4}$d. for 197 days, at $3\frac{1}{4}$ per cent.

2. I paid £28 per cwt. for tea, and sold it again for £32 10s. per cwt.: what quantity must be sold to gain £169 17s. 6d.

3. A person placed £350 in a bank: to what sum will this amount in 6 years 10 months, at $4\frac{1}{2}$ per cent.?

Sec. V.—1. Add together—$5\frac{1}{5}$, $4\frac{1}{4}$, $3\frac{1}{3}$, $2\frac{1}{2}$.

2. If $\frac{1}{3} + \frac{1}{4} + \frac{1}{12}$ of a number amount to 36; what is the number?

3. Devide ·0075 by ·15; find the value of ·625 of a cwt.; and reduce £5 6s. $2\frac{1}{2}$d. to the decimal of a pound.

Sec. VI.—1. Explain fully, with illustrations, the difference between double and single entry.

2. Explain the meaning of the following entry in the ledger "Profit and Loss Cr. by Wine £80."

Erratum.—In the paper, in last number, on "Decimal Notation," last line but e 89 5s. $9\frac{3}{4}$d should be £89 9s. $5\frac{3}{4}$d.

PAPERS FOR THE SCHOOLMASTER.

No. 39. MAY 1, 1854.

The Claims of Language in Education.

No. II.

In our last number we pointed out some of the characteristic features of that discipline which the study of Language especially has in its power to bestow. We spoke then of Language generally, and of their study in its widest sense: intentionally including all those branches which have a common root in *systematic attention to the forms of spoken or written thought.* This discipline may be gained, to a greater or less extent, from the study of the Sciences of Grammar, Logic, or Rhetoric; or may be realized, more practically and experimentally, in the acquisition of a foreign language; or, lastly, may be the result of an attentive and accurate consideration of our mother-tongue and its literature. A judicious combination of these methods, such as is aimed at in our English Grammar-school and University system, would seem to promise the fairest results practically attainable in this particular direction.

Latin and Greek are, we need scarcely mention, the languages through which these results are sought to be attained. A so-called *classical* education approaches, it may almost be said, every other subject through this medium, or else leaves other subjects, with a hopeful confidence, to the future spontaneous activity of a mind trained to vigour and accuracy in one. "All through one" is its motto,—of which, however, it is not our present object to ascertain the worth as a maxim. We now wish simply to enquire, what reasons justify the choice of these languages in particular.

We think that their defence must rest on other grounds than is sometimes assumed. That the dead languages, being fixed and exempt from future change, are thus better fitted for purposes of education is an evident fallacy, since, with respect to us, the living languages have no less arrived at a perfect maturity. The changes which continue to affect a language, so long as it is spoken, are yet so slight in a single generation as to be absolutely inappreciable in their effects upon its grammar or construction. Nor is there less difference between the Latin or Greek of one period and that of another, in the literature which has come down to us, than between the English of Chaucer's period and that of any writer of the present century. So that, since we need not concern ourselves about changes that may be, the dead languages seem to possess no advantage in this respect. In one important aspect, however, they do claim a precedence, as dead languages, for purposes of intellectual culture. In acquiring a language which is spoken about and around us, the ear outruns the mind. We catch its peculiar forms and types of phraseology by, as it were, an instinct of memory, rather than by an effort of understanding. Observation does not necessarily precede reproduction, nor does the mind find itself compelled to revert to rules, or give any account to itself for its choice of this above that phrase or usage. Attention is thus diverted from the framework of the language itself, from the significance which the words possess in virtue of their derivation, from the peculiarities of idiomatic expression, and other points of the first importance, when the effect and value of attention to such things is the very question at issue. What we want to secure is a conscious appreciation of the powers of language, an intelligent sense ot its laws of expression, an acquaintance, in short, with its mechanism. These fossil languages, being external to ourselves, abstracted from everyday association, and addressing the mind through the eye, appeal more exclusively, for these very reasons, to the intellectual faculty, and thus admit the better of being contemplated analytically.

It is not, however, on these grounds alone that we rest the merits of Latin and Greek literature. The languages themselves claim attention as masterpieces of human invention; again, they are the approaches to a vast and rich field for historical research: and, moreover, bring us into connexion with the great minds of antiquity.

If it is of value to study the genius of any language, unquestionably the more perfect organization will best repay the study. Now the character of a people is deeply impressed upon its language. The old Roman energy and stern simplicity, as it yielded to the subsequent influence of refinement, may be traced in the records of its literature. The Greek language is but the natural outgrowth of the mental organism of the most intellectual nation which has existed. In the one we find a rugged force of expression subjugated, as it were, to a severe dignity and decorum. In the other, a flexibility and precision which follows without effort the most subtle processes of thought. With a vocabulary at once varied and abundant, a system of inflected forms, which is capable of conveying distinctions often absolutely inappreciable, except to a practised attention, it possesses a power of expressing compound ideas by means of simple combination, which is almost unlimited. Add to these qualities that of natural harmony, and we have all the poet, historian, orator, or philosopher can desire for the embodiment of their thoughts and feelings. We doubt, indeed, whether it does not deserve to be studied as the most perfect monument of human intelligence.

Though Latin yields, in these respects, the post of pre-eminence it still as a language claims a high degree of merit. Among other characteristics which point it out as a good model through which to become acquainted with the power and force of language generally, we may mention the exactness and permanency of its grammar forms. That which renders it, however, so powerful an auxiliary in English Education is its connexion with our own tongue. It not only has entered, so to speak, into chemical combination with the Anglo-Saxon element, but it has directly exercised so pervading an influence over the minds of our greatest and best authors, that our language and literature have become Latinized. In acquiring, therefore, a sound and systematic knowledge of Latin, we are gaining, almost at every step of the process, a clear insight into the structure of our own language, and something also of power and skill in the use of it.

The classical authors of antiquity are so universally acknowledged in the relation of intellectual patriarchs to modern times, that it is scarcely necessary to lay stress on the value of their literature, as an additional argument in favour of the dead languages. Farther back in our history, when home-grown authors were scarcer, this alone would naturally give them ascendancy, and the influence which they then gained, notwithstanding the vast changes which have taken place in our habits of thought, and the enlargement of the bounds of knowledge, has remained almost unimpaired. The following is the tribute of an author of our own day:—"In acquiring the knowledge of Latin and Greek we come into contact with the masters of the world—with the men whose writings are distinguished by every attribute, and include every species of excellence—who have supplied models in every department, and left behind them lessons for all time."

Modern Methods not always New Methods.

It is rather amusing to read, from time to time, the claims put forth in various ways to the honour of having introduced into this country certain methods of teaching. Had we sufficient credence, we might be made to believe that every method now approved of is actually a new creation, and that our predecessors in the work of teaching were in all but utter darkness. Certainly, if half that is written on this subject is truth, they had no knowledge of principles and proper methods; and, in short, they knew but two professional facts—the nature of memory and the use of the rod. We confess, however, to some slight misgivings as to the correctness of the popular view of this subject. Perhaps our doubts are wrong; still we could never get over the following little difficulty which stood in the way of our faith. In our simplicity we reasoned thus—bad carpenters make bad tables, bad surgeons can hardly be expected to make a good set of a compound fracture, and, by a parity of reasoning, these old schoolmasters, without either principles or methods, must have done very little for their pupils. Now, in the present day we boast of clever teachers, most of them "up" in the new and best methods; the natural conclusion is, that with these very superior antecedents, the little boys and girls should have very much done for them, and be incomparably superior to the school children of but half a century ago. And here lies our little difficulty—we cannot find sufficient evidence of this result; we do, however, find that those who went to school under the old régime learnt to read, write, and spell well, and this a clergyman who has had large experience in prisons and in the metropolis, says is not done now. His statement is, that very soon after children leave school they lose the power of reading—a pretty certain proof that it was not solidly acquired.

We do not intend to discuss here the relative merits of the old and the new, our object being of a very simple and uncontroversial character—to show that many of the methods which we term *new* are not so, and that the schoolmasters of this and other countries have, centuries ago, felt for, as we now feel for, the effectual way of securing a sound education. We do not mean to say they found it, neither do we feel satisfied it is yet found, and when it is, it will assuredly not be a *communicable* gift—not a thing that can be handed over or transmitted, but to be won only after years of labour. As with the physician so with the teacher—both may learn the first steps of their profession from their seniors, both may walk the practising schools, and may obtain their diplomas of competency; but all this is not skill—skill may be built up most successfully on such a foundation, but the skill itself can result only from a long, careful, and ofttimes a painful practice.

We will now introduce our readers to an old teacher, by name John Amos Comenius, a native of Moravia, and a Protestant divine. His fame rests principally on his efforts to introduce a new method of teaching languages (in part, a variety of the interlinear, aided by pictorial illustrations). So great was his reputation that the Parliament of this country sought for his assistance to regulate the English schools. For this purpose he came to England in 1641, to meet a committee of the Parliament appointed to receive him, but the troubles of the times prevented any results. Comenius then withdrew to Sweden, where he was supported by the generosity of a private individual. After publishing many educational and other works he died in 1671, aged 80.

The Comenian method was partially adopted in England, and his first book, "Orbis Sensualium Pictus," translated by Charles Hoole in 1658. In little more than 50 years it had run through eleven editions.

It is not our intention to say any more respecting this method, but simply to show, by means of extracts, that both Comenius himself and his translator Hoole had a clear conception of some important points in education, to which claim is or has been laid within the last quarter of a century.

The cultivation of Perception and Conception.—"The ground of this business is, that sensual objects may be rightly presented to the senses, for fear they may not be received. I say, and say it again aloud, that this last is the foundation of all the rest. Now there is nothing in the understanding which was not before in the sense; and therefore to exercise the senses well about the right perceiving the differences of things, will be to lay the grounds for all wisdom and all wise discourse; which, because it is commonly neglected in schools, and the things which are to be learned are offered to scholars without being understood or being rightly presented to the senses, it cometh to pass that the work of teaching and learning goeth heavily onward, and affordeth little benefit."

The Understanding to be cultivated as well as the Memory.—"For to pack up many words in memory, of things not conceived in the mind, is to fill the head with empty imaginations, and to make the learner more to admire the multitude and variety, and thereby to become discouraged, than to care to treasure them up, in hopes to gain more knowledge of what they mean. Descend to the very bottom of what is taught, and proceed as nature itself doth, in an orderly way; first to exercise the senses well, by representing their objects to them, and then to fasten upon the intellect, by impressing the first notions of things upon it, and linking them one to another by a rational discourse. Missing this way, we do teach children as we do parrots, to speak they know not what."

Lessons with real Objects.—"Since some things cannot be *pictured out* with ink, for this reason it were to be wished, that things rare, and not easy to be met with withal at home, might be kept ready in every great school, that they may be showed also, as often as any words are to be made of them to the scholars. Thus at last this school would indeed become a school of things obvious to the senses, and an entrance to the school intellectual." Is not the germ of Pestalozzianism here? The words "pictured out" are put in italics by ourselves to call attention to the old use of this now popular phrase.

Use of Pictorial Illustrations.—"Pictures are the representations of all visible things of the whole world. Such a dress may entice witty children, that they may not conceit a torment to be in the school. For it is apparent that children, even from their infancy almost, are delighted with pictures. And it will be very well worth the pains to have brought to pass, that scare crows may be taken away out of Wisdom's gardens."

Use of Black-board.—But little is said on this piece of school apparatus. It is, however, interesting to know that in a description of a school, written two centuries since, this useful adjunct for illustration is noticed, Comenius says: "Some things are writ down before them with *chalk* on a table," This notice would not have been so satisfactory as it is, but there accompanies the description a "copper cut," and there we see upon the wall a black-board, as large as a window, with a diagram chalked upon it.

On the point of *illustration* we may add, "The judgment of Mr. Hezekiah Woodward, sometime an eminent schoolmaster in London. Certainly the use of images or representations is great; if we could make our words as legible to children as pictures are, their information therefrom would be quickened and surer. But so we cannot do, though we must do what we can."

Masters must have Sympathy with the capacities of the children under Instruction.—"A schoolmaster had need to bend his wits to come within the compass of a child's capacities of six or seven years of age, and to make that they may learn with as much delight and willingness, as himself would teach with dexterity and ease. And because any good thing is the better, being the more communicated, I have herein *imitated a child*, who is forward to impart to others what himself has well liked."

Phonic Method of Teaching to Read.—"It will afford a device for learning to read more easily than heretofore, especially having a symbolical alphabet set before it, to wit, the characters of the several letters, with the image of that creature whose voice that letter goeth about to imitate, pictured by it. For the young a b c scholar will easily remember the *force* of every character by the very looking at the creature, till the imaginatien being strengthened by use, can readily afford all things."

It may be necessary to explain, that what Comenius calls the "force of every character" is obtained from *verbs* denoting the actions of animals, instead of from *nouns* as is now the general practice. A series of "copper cuts" is given for this purpose, called "A lively and vocal Alphabet."

Tasks and Training.—"Because the first tasks of learners ought to be little and single, we have filled this first book of *training* one up to see a thing of himself, with nothing but rudiments, that is, with the chief of things and words, or with the grounds of the whole world, and the whole language, and of all our understanding about things." The attentive reader will hardly fail to observe that the word "training" is used in precisely the same sense as by modern educationists.

The Uselessness of Bare Rules of Grammar.—"You that have the care of little children, do not trouble their thoughts and clog their memories with bare grammar rudiments, which to them are harsh in getting, and fluid in retaining; because, indeed, to them they signify nothing, but a mere swimming notion of a general term, which they know not what it meaneth, till they comprehend particulars. For rules, consisting of generalities, are delivered, as I may say, at the third hand, presuming first the things and then the words to be already apprehended, touching which they are made."

Teacher's entire dependence upon God's Blessing.—"And I pray God, the fountain and giver of all wisdom, that hath bestowed upon us this gift of teaching, so to inspire and direct us by his grace, that we may train up children in his fear, and in the knowledge of His Son Jesus Christ our Lord; and then, no doubt, our teaching, and their learning of other things subordinate to these, will by the assistance of His Blessed Spirit make them able and willing to do

Him faithful service both in Church and Commonwealth, as long as they live here, that so they may be eternally blessed with Him hereafter. This I beseech you beg for me and mine, as I shall daily do for you and yours, at the throne of God's heavenly grace; and remain while I live ready to serve you, as I truly love and honor you, and labor willingly in the same profession with you.

"From my school in Lothbury, London,
Jan. 25th, 1658. CHARLES HOOLE."

In this way Mr. Hoole, the translator, winds up his prefatory remarks on method in connexion with the First Book of J. A. Comenius.

We have already made our article sufficiently long, otherwise we had proposed to make a few remarks based on the fact, that correct principles and methods were not so unknown to our predecessors in the work of education as has generally been supposed, but we must forbear for the present.

THOUGHTS UPON THE DUTIES OF THE SCHOOLMASTER.

A Paper read before a Self-improving Society attached to a Training College, by one of the Students.

The subject introduced by the above heading, although it may at first appear dull and uninteresting, is really one of vast extent and vital importance. A moment's consideration will convince us of this. Amidst the various topics which now receive their share of public attention, there is not one more important than that of Education. Let us bear in mind the vast influences it exerts in forming the habits and moulding the character of man, and fitting him for his duties to himself, his neighbour, or his Creator; developing to this end his mental and moral faculties—influencing, and almost determining his earthly pursuits, and above all affecting his eternal destinies, and preparing him for the enjoyment of those good things which have from eternity been prepared for him, and we cannot fail to discover wherein its immense importance lies. And if its effects are such as to demand for it a large amount of attention from all thinking men, is it not still more essential that the Teacher, whose whole time is dedicated to the work, and to whom so many of England's little ones are to be intrusted at the most important period of their history, should carefully study it; should not he be anxious to discover what he can do towards the improvement of Education as a science, which it will be his very province to deal with?

Once more, the peculiar circumstances of the times increase the necessity of this. We live at a great educational epoch. Public attention has been turned to the subject; the necessity for an improvement has been discovered; new machinery, new plans, and a new class of workmen have been brought to the task, and searching enquiries have been made into the subject, and these things seem to point out most clearly that we live in times of a large Educational revolution, and that the future prospects of Education depend to an unprecedented extent on the events which are now transpiring, and with which the present race of Teachers are intimately connected.

To proceed directly to our subject, it is obvious that before we can determine how the improvement we speak of is to be effected, we must fully understand the character of the times in which we are placed, and discover what things need improvement. Let us then take a glance at our present Educational position.

With respect to Education, the present is a transition period. The rays of light have begun to pierce through the clouds of ignorance in which our country has been for ages enveloped. "Our Schools are being rescued from the control of the aged dame, or the ignorant empiric, and placed under the care of persons who have been specially trained for their work."* The formerly prevalent notion that Education among the working classes is only another name for infidelity, chartism, revolution, and excess, is fast dying out, and the utility of Education is pretty generally admitted. The State is beginning to recognise its duty of seeing that provision is made for the proper training up of the children of the poorer classes, and to act upon such a recognition, and instead of being entirely neglected, or spoken of only in ridicule and contempt, Education is becoming one of the most frequent topics of ordinary discussion.

So far we have seen the bright part of the landscape, but our land has been so long enveloped in clouds of darkness, that that they are not all yet dispelled. Thick clouds still hang about the horizon. In many minds there remains a kind of instinctive dread of over-educating the working classes, however difficult they may find it to define the term, which makes its possessor either entirely negligent of the subject, or become the advocate of a cautious and economising policy. From some similar cause we find the Teacher too often denied his due meed of sympathy, support and encouragement. Often, indeed, he is an isolated and lonely labourer, with none to sympathise with him, to cheer his harassed and drooping spirits, to assist him with friendly connsel, or to be his real friend and companion, and hence he becomes deponding and his moral influence impaired.

That this is not an exaggerated picture, many can testify from painful experience. In our large manufacturing and commercial towns it is true that he is more respected and befriended. But follow him to the rural village, or the agricultural town, where ignorance stalks boldly abroad, and his presence is most needed, and his labour most severe. See him there, after labouring zealously through the day in a crowded or ill-ventilated room, in the midst of vexation and regret, seek his home, wearied in body and mind, and worn out with the toil of the day. Where are those friends with whom he may associate intimately and beneficially – persons of kindred feelings and sensibilities with himself, whose company will improve and cheer him? Any one who knows anything of the state of our rural society, will answer that he does not find access to the society of those whose conversation he could enjoy, and since on the other hand he cannot associate with those whose whole thoughts and feelings are adverse to his own, he is necessarily lonely and friendless.

But leaving the Educator, we will look abroad to discover men's views with regard to Education, and though the majority are favouring its wider spread, there are not a few whose views and conduct show strongly the necessity for improvement. There are some still to be found who unhesitatingly retard its onward progress, or at least exert no influence to advance it; others shelter themselves under the plea that it is practically useless, if not injurious to educate the working classes, that it tends to upset the order of society, and to promote revolution, irreligion, and excess. Without a *shadow* of *real* argument, these men spend many words, and urge many fancied considerations, to lead the public to believe that the very culture which refines the upper ranks of society, restrains their passions, renders them submissive to lawful authority, and makes them the support and ornament of our land, would produce a diametrically opposite effect on those born in a lower social position. They would have us forget that God has implanted in the infant peer and peasant the self same faculties which need to be developed, and that it is alike true of the prince and the labourer, the noble and the beggar, the learned and the ignorant, that –

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* Ibid "Papers for the Schoolmaster."

> " From Nature's hand like plastic clay they come
> To take from circumstance their woe or weal,
> And *as the form and pressure may be given*,
> They wither upon earth, or ripen there for Heaven."

Some of these are really conscientious opponents, and hold an honest opinion that the poor would not be benefited by Education; others, we cannot but fear, have too exclusive a regard to the interests of a certain class, and have traditionally been taught to regard the labourer as a *mere machine*, made for the simple purposes of his employer, and they fear lest education should lead him to know and claim his right position, as an humble but real member of the human family.

But the opposition of this last class is often of another and more subtle kind. Fearful that their arguments will be powerlesc, and the real cause of their opposition be discovered, they adopt a less suspicious and more secret hindrance, and in order to gain confidence and disarm suspicion, they pretend to be anxious for the spread of knowledge, and take a part in all institutions intended for its advancement. But in reality they are only silently endeavouring to undermine our foundations, silently to thwart the efforts of the wise and larger-hearted, and unsuspectedly manage to counteract the effect of that which they appear to approve.

From such as these we are too happy to turn away, and address ourselves to those who are really anxious to promote and extend the work, but execute their part in such a manner as to defeat their own well-meant purposes. Some of these mistaking the first principles of Education, endeavour to make our schools mere cramming institutions, giving instruction so much, and of such a kind, that it cannot be digested by its recipients. Others, who are ignorant of the difficulties and trials of the Schoolmaster, of the materials he has to work upon, and the hindrances which beset him on every side, are unsettling him by propounding and endeavouring to force upon him Utopian schemes, or discouraging him by blaming him for not producing those results which by some fancied logical or mathematical process, they have calculated he ought to obtain, while others in endeavouring to push forward some favourite scheme, or to reproduce or strengthen some section or party, are furnishing arguments for our opponents, and lessening the imperfect unity which exists between English teachers.

The existence of such parties clearly shows a necessity for improvement.

We turn next to observe the parents of the children who attend our National Schools, and discover in what way their influence is exerted. See them unlearned, and (too often) unthoughtful, spending all their energies in providing for their bodily wants, looking upon labour as the sole object of their existence, and viewing their children as beings born to endure certain troubles, to go through a similar course of vicissitude and toil that they have experienced, and then—*to die*. Sadly do they forget the fact that in these wondrous beings—their own little ones—there exist faculties and powers which, if developed, might produce happiness, usefulness and joy, and that they are placed here to prepare for another and an eternal existence. Hence they too often view the school at best as a convenient place to which they may send their children *out of the way, till they are old enough to do something towards earning their bread* by the sweat of their brow, and the Teacher as a person paid to look after these children; one on whom they are conferring a great favour by sending their children to school; one whom they are at liberty to abuse, insult, and speak of in language which a master would rarely employ towards his servant. In short, they do not value the School, nor the Teacher. And this prodnces a twofold result:—

(1). The children imbibe similar notions, and learn to despise and neglect the School, and to slight or oppose their Teacher.

(2). It has an evil influence on their attendance. The child in various ways proclaims his need of Education, but owing to this parental ignorance, and intellectual and moral supineness, the silent but universal plea is neglected. The work of the School is not appreciated, and hence children are kept at home on the most trivial excuses, and no sooner does an opportunity present itself by which the child can add his mite to the slender income of the family, than he is finally removed from school, ere time has been allowed for his mind to have been cultivated, his faculties developed, or even enough knowledge crammed into him to enable him to pursue his studies, or to give him the wish to do so. In short, from this source spring those constant hindrances and inconveniences, inconstant and irregular attendance, and a period of school life, in short, as to be practically of little use.

(To be Continued.)

Educational Intelligence.

MR. MARTIN'S EXPERIMENTAL VILLAGE SINGING CLASSES.

THE WATTON SINGING CLASS.—The success which has attended this effort to introduce a knowledge of vocal music amongst the inhabitants of the village of Watton has created so much interest in the county, that we doubt not the following remarks will be acceptable to our readers. It has often been said that that the English are an unmusical set of people,—that an attempt to introduce a general knowledge of vocal music would certainly fail, and that the people as a nation would not care to avail themselves of any effort to provide them with a musical education. An attempt was, however, made about twelve or thirteen years since, under the patronage of the Government, and parties interested in national education. Singing classes were established in every part of the kingdom, and the vast numbers attending proved, beyond doubt, that the people most anxiously sought to become acquainted with the principles of vocal music; and it was believed that we should soon vie with our continental neighbours in our knowledge and appreciation of the science of sweet sounds. That this belief was too sanguine we freely confess; expectations were raised to too high a pitch; after a very short period these classes ceased to exist, and our towns and villages were left in the same position as before this movement was made,—the failure being generally accounted for by the defects of the system then adopted. From that time it became a problem as to whether our village population could be taught the principles of vocal music and practically to carry out those principles. This we may think has been solved in a most satisfactory manner at the village of Watton, (with a population of seven or eight hundred only), by Mr. Martin, who is well known as a composer of classical music, and as the author of several useful educational works on music. It appears that this gentleman has been seeking by hard and laborious work, to prove that music, as a most powerful agent in cultivating the intellect and improving the moral condition of our working population, can be successfully cultivated in our towns and villages; and to show that while music exercises such a powerful influence over the minds and dispositions of the people, it may be made a stepping stone whereby other branches of education might be introduced to our labouring classes, and thus the benefit of Mechanics' Institutions and reading rooms become more fully developed. This is the case at Watton; in consequence of the singing class having proved so successful, the Rector has built a reading room, and evening classes have been established for the adult labouring population, and carried on with success. Mr. Martin appears to think that a great deal could be effected with regard to popular musical instruction, especially in villages, by our schoolmasters, and with that idea he entered upon engagements in various training colleges, for the purpose of testing, by personal observation, to what extent the young persons receiving their education as schoolmasters and schoolmistresses in those establishments, could be instructed in music. Having satisfied himself on this point, he next placed himself in the position of schoolmaster in various villages, for the purpose of studying the capabilities of the village population to receive musical instruction, and thus by personal experience, ascertaining to what extent the musical knowledge acquired by the students in our training colleges could be made availabie to this desirable consummation. The Watton class is the result of one of these experiments and we now proceed to give a description of its rise and progress. In Mr. Martin's search for a village where a fair trial could be made, he was introduced to the Hon. and Rev. Mr. Barrington, the rector of Watton, who most liberally undertook to defray the expenses of his visits. It was then made known that a gentleman would attend every Monday to give singing lessons at the schoolroom, and the villagers were invited to attend. From very small beginnings, (the first attendance consisted of only two men, and three boys) the class shortly numbered upwards of 60 members, and it now consists of all classes, from the field labourer upwards; and their constant and punctual attendance, and extreme propriety of conduct, are, we are informed, above all praise, at once overturning the argument brought forward by a few persons, that such meetings lead to, and are calculated to encourage, impropriety of conduct.

We can best convey an idea of the success which has attended Mr. Martin's efforts by stating that although only eighty lessons have been given to the class (and those not regularly) they have for some months been accustomed to sing the finest of Handel's choruses, and Cathedral anthems, also some of our best glees and madrigals; and we are informed that it is very common to meet with mere children belonging to this class who have made extraordinary progress in sight singing; moreover amongst the members are men accustomed to field work, who possess score copies of some of the Oratorios, and are able by merely looking at the scores to form a correct idea of the beauties and difficulties of those parts which they have never heard.

It is now customary if a new church is opened within a reasonable distance of Watton, to find that the services of the choir are solicited for the occasion. Our readers will doubtless recollect our report of the opening of Wood End Chapel School at Ardeley, in the *Herts Guardian* of August 20th; and our notice of the valuable services rendered by the Watton choir. The services, responses and chants of our church services were given with a precision and ffect not surpassed by any Cathedral choir we ever heard,—and we are familiar with some of the best minster choirs of the kingdom. The Hallelujah chorus was sung at the close of the service in most beautiful style, and the vicar (the Rev. Mr. Malet,) in his excellent address after the repast in the tent, truly stated "that they had that day listened to the finest music in the world;—music far surpassing that of any organ of man's make; for they had heard the music of God's organ, the human voice." Nor shall we ever forget the effect produced by the glees which the choir sung in the tent in the afternoon, to wile away the time, while the rain fell heavily outside. Ladies and gentlemen, members of the aristocracy of the land, listened with mingled astonishment and delight to the musical performances of the rustic lads and lasses from Watton; while the wondering villagers clustered round the singers, and pushed their way into the tent, marvelling to hear such harmony from rustics like themselves, and listening to sounds more sweet than had ever before echoed in the dales of Ardeley Wood End.—In addition to the testimony we then gave of our appreciation of Mr. Martin's successful efforts, we give the following extract from an account of the opening or Ardeley Chapel School in one of the London papers:—

"The services of the Watton choir were a great addition to the ceremony. In about seventy lessons from Mr. Martin, they have attained an efficiency which bears witness to the excellence of his system, for, with their voices unaccompanied they can read off their parts in any music, and the singing on this occasion was equal, if not superior, to most Cathedral choirs, the vocalists being about equal numbers of young women, men, and boys, all from the humbler classes of a village. Not only were the Chants. Anthems, and Hymns of the Divine Services sung in perfect tune and time, but the manner in which they sung "God save the Queen" and "Rule Britainnia," in the tent, was caculated to rouse the loyalty and patriotism of all who heard them, even to the unlettered labourer of the fields. Many people crowded round to listen, their attention shewing they were fully alive to the charms of music; indeed, this confirms us in the opinion that singing ought to be made an essential element of instruction to the poor, and that the managers of their education would do well to devise certain means for its being so."

—At the opening of the new church at Tundridge the services of the Watton choir were again in requisition, and in our report of the same we paid no more than a just tribute to the valuable aid they rendered on that occasion; and we know that much surprise was expressed by judges of music, on hearing that the musical portion of the service was sung with such perfection, by the choir of a neighbouring village. The Bishop of Rochester, who performed the ceremony of consecration, stated that he never heard the Hallelulah chorus so well sung,—and until he was told to the contrary, he thought the music was conducted by professional singers. We thus find a village choir capable of singing one of the most difficult and noble choruses ever written, in such a manner as to bear comparison with a choir of professors, and to be rated as equal to our Cathedral choirs:—thanks to Mr. Martin, who thus creates for himself the position of a public benefactor.—*Herts Guardian.*

CIRCULAR.

The following Circular has been received by H. M. Inspectors and the Principals of the Training Institutions:—

Committee of Council on Education,
Council Office, Downing-street, 30th March, 1854.

SIR,—It has come to the knowledge of my Lords of the Education Committee of the Privy Council, that circulars are issued te Pupil Teachers in Schools under inspection, offering Prizes for Essays on various subjects.

In one of these circulars, which my Lords have seen, a preliminary payment of 6d. in post-office stamps was required from the Pupil Teacher before informing him of the subjects and terms of competition.

The presumptive evidence of fraud was, in this case, so strong that my Lords referred the paper to the police for inquiry. It did not, however, appear that any fraudulent scheme had been planned. the persons issuing the circular being in some instances persons of the same class as those to whom it was addressed, and the object being to form a common fund, for the prizes and necessary printing, out of the contributions.

Allowing credit to the persons concerned for good intentions, it is evidently most improper that such communications should be made to Pupul Teachers without the knowledge of the Managers of their Schools, or in any other way than through the Managers.

Such unauthorized communications distract the attention of the apprentices from their prescribed studies, which, with their daily work as Teachers in School, constitute as heavy a burden as the health of the body and mind, at that time of life, is capable of continuing to support.

This is not a subject on which my Lords would feel called upon to interfere in any particular instance further than as it might appear to effect the progress or health of the apprentices, or to be carried on without the cognizance of the Managers. My Lords however wish you to call the attention of Managers and Teachers to the general facts and to their Lordships' opinion thereon.

I have the honour to be, Sir,
Your obedient Servant,
R. R. LINGEN.

Correspondence.

SIR,—In your last number G. H. H. states the following difficulty connected with barometrical indications, that if we compare the atmospheric pressure of two consecutive days, the first with a clear and fine atmosphere, the second with an atmosphere charged with vapour on the point of precipitation; then the weight of the air will be less, as shown by the barometer, on the second day than on the first, notwithstanding the extra amount of vapour it has taken up: and, "moreover" he adds "it must contain the nights evaporation."

In explaining this phenomenon he reasons thus, "I take a column of air of any given base, and of a limited height, and suppose this column when rarefied to expand in length or height, but not in bulk, because hemmed in on all sides by air as dense as itself;" yet still, he writes "the question accurs to me, why is it not as heavy as before rarefaction and and the addition of moisture?"

G. H. H. has overlooked the fact, that the earth, having parted with its heat by radiation, will during the night condense the vapour in the superincumbent stratum of air; and therefore, speaking generally, the precipitation and not the evaporation of moisture will be the result; consequently his remark bearing on this part of the question goes for nothing.

Had he carried his remark one step farther he would have found that the extra amount of heat required to expand his hypothetical column of air, would at the same time increase its capability for moisture—in short—that an *increase of heat* is an *additional amount of vapour* (Dalton); and therefore the hotter the air, the greater will be its expansion, and also the greater will be the absolute quantity of water held in solution by it.

Again: that because the given column of air expands only in length or height, and not in bulk therefore the centre of gravity of such a column would be considerably raised; or removed farther from the centre of attraction, and its gravitation towards the earth would be less as shown by the barometer.

Or again: assuming Humboldts hypothesis of an aerial ocean; and that air, like other fluids, finds it own level; then, on any part of the atmosphere being raised above the surrounding ocean of air, it would over-flow until it had regained its usual level; and thus a portion of the upper stratum would be removed to other localities.

I must add that the oscillations of the barometer have brought out a perplexity of opinions from such men as Laplace, Dumas, Bossingault, Dalton and Daniell; nearly all of whom differ in their conclusions, because, I think, so few of them are agreed as to what are the actual relations existing between the different elements of the atmosphere. The theory of Dalton who assumes an atmosphere of vapour—another of oxygen—another of nitrogen an so forth, each independent of the other and reaching to different heights is perhaps the simplest of all; and, as it will explain the greatest number of phenomena, is, I think, the nearest the truth.

However G. H. H. will find all the various opinions connected with barometrical oscillations nicely arranged—commented upon—and pretty generally condemned in a paper by Professor Loomis ot New York, in which it is asserted that heat has but a secondary effect on the barometer for that in some instances it has been observed to indicate a decrease of pressure whilst the thermometer has shown a decrease of heat, quite contrary to the usual effect; and that the principal barometrical phenomena are produced by the forces of prevailing winds, which by driving the air vesicles before them causes a mechanical condensation of them, and therefore an increased pressure in those parts from whence the atoms were driven. I need scarcely add, that by many, this has been controverted, although there appears to me much truth in the Professors remarks.

I shall be most happy to communicate farther with G. H. H. if he thinks well to go more into this interesting subject, and for this purpose I enclose a note containing my address, which if you, Mr. Editor, would be kind enough to forward to him would greatly oblige.

NESCIUS.

Sir,—Your correspondent T. has given expression to his ideas on corporal punishment in your last number, to which I beg leave to make some additions by adding mine. Speaking with reference to corporal punishment he says "and since corporal punishment is the most effective (generally), and the most expeditious, it is therefore the best." To this it is remarked that "the fear of grieving a kind friend and master will be far safer and more effective." Here I agree, but while doing so I must own that I cannot see how corporal punishment can be superseded in every case. When, as in my own case, a master takes the charge of a neglected school, in which discipline has been unknown for two years and the boys really untrained, how is he to establish his authority? Is not corporal punishment essential to success in his endeavour to reform that school? My firm opinion (at least at present) is, that it is absolutely necessary. He may soon get the children to love him, but he cannot for a long time instil that fear of grieving a kind master, into their minds, and make it capable of governing their actions. When he can do it (which I have hitherto failed in doing), corporal punishment may be dispensed with, but until then, is is absolutely necessary for the maintenance of his authority.

I should like to hear some of my fellow teachers' opinions on that point. J.

Sir,—I should be extremely obliged if you or any of your correspondents can inform me, through the medium of your valuable Papers, whether Pupil-teachers, during the time that intervenes between the termination of their apprenticeship and their entering college, are exempt from being drawn into the militia, or pressed as sailors, &c., should government find it necessary to resort to these means. I. I.

Being a P. T. I feel anxious for an answer, which will be thankfully received, by your constant reader.

[We cannot profer a legal opinion, but our strong impression is that you would not be exempt.]

SIR,—Would you allow a constant reader of your very valuable periodical to ask any of your correspondents if they would be so kind as to favour me with an *analysis* of the following sentence?

"If it be said, that we should endeavour not so much to remove ignorance, as to make the ignorant religious: religion herself, through her sacred oracles, answers for me that all effective faith presupposes knowledge and individual conviction." G. W.

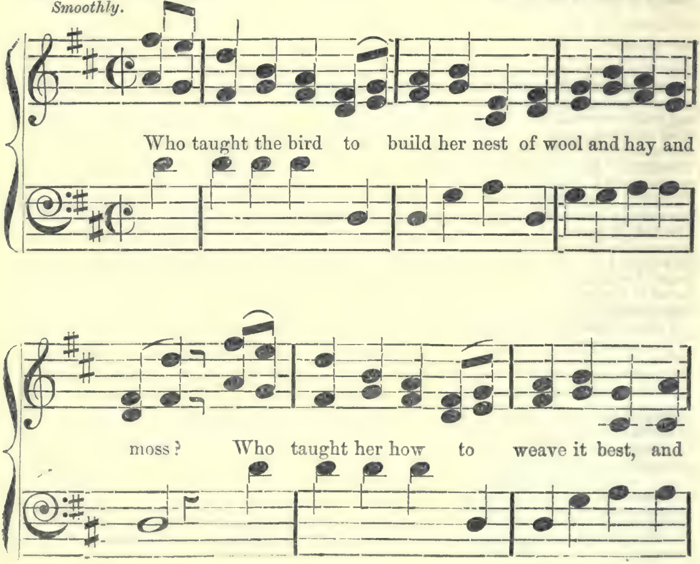
SIR.—Will you grant me a small portion of your valuable periodical to ask any of your correspondent if they would be so good as to inform me what are the chief objects of collective lessons as addressed respectively to infants, children from 10 to 13, and children from 7 to 10. A. J.

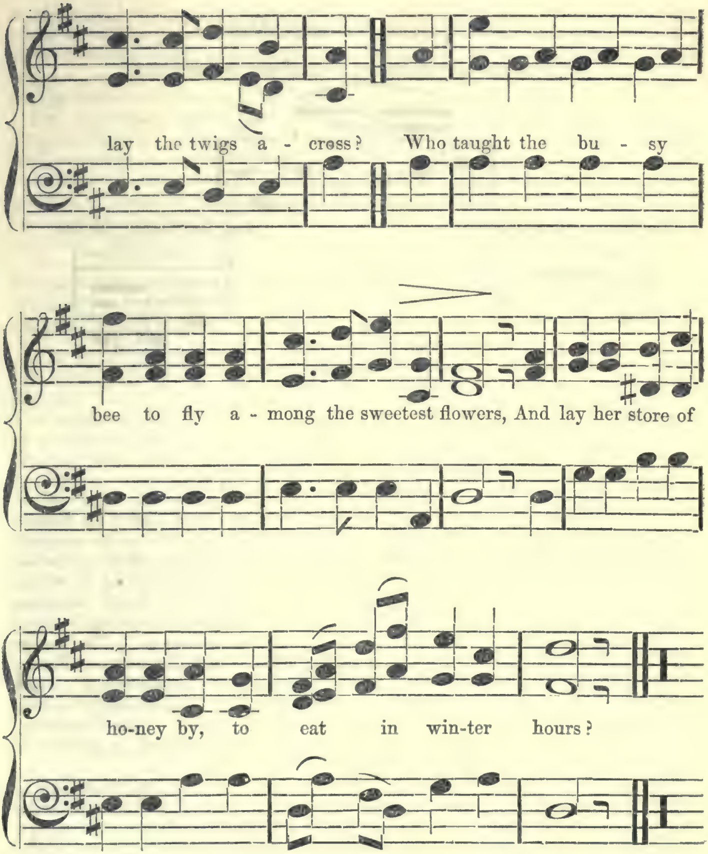
SIR,—I should feel obliged by any of your correspondents informing me of a text-book which is suitable for teaching Scripture History in an elementary school.

A CONSTANT SUBSCRIBER.

God Teaches.

Poetry by Miss Taylor. *Music by J. H. Cross.*

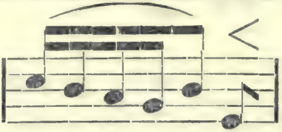

Smoothly.
Who taught the bird to build her nest of wool and hay and
moss? Who taught her how to weave it best, and


lay the twigs a - cross? Who taught the bu - sy
bee to fly a - mong the sweetest flowers, And lay her store of
ho-ney by, to eat in win-ter hours?

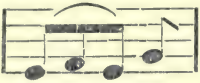
Who taught the little ant the way her narrow hole to bore?
And through the pleasant summer day to gather up her store?
'Twas God who taught them all the way, and gave their little skill,
And teaches children how to pray, and do His holy will.

Corrections in November Number.

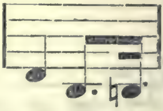
In 1st Treble, last bar but one, please to substitute



In 2nd Treble, last bar but one



And 3rd Treble, 3d bar



For the notes now standing.

NOTICES OF BOOKS

Drawing for Schools. Drawing-Book for Little Boys and Girls; *by Thomas Tate.*—Longman and Co.—We cannot do better than introduce the complete title of the former of the two works, as giving a fair idea of its contents. "Drawing for Schools: containing Expositions of the method of Teaching Drawing in Schools; a full Explanation of the Practice of Model Drawing after the method of Dupuis, as first practised at the Battersea Training College; together with numerous Illustrations and Drawing Exercises." The entire work is divided into two parts. The *first* part treats of the Elements of Form; and contains drawings of lines and surfaces, together with sketches of simple and familiar objects, without shading and foreshortening. The *second* part treats of Drawing from Models, as well as from natural objects. The Drawings, which are intended to be copied by the pupils, are arranged in a series of exercises of progressive difficulty.

In connection with the present movement, Mr. Tate has done good service to the Department of Art, in simplifying and arranging the elements of drawing so as to adapt them to the present condition of elementary schools. It appears to us a great misfortune that in the several attempts to introduce new and improved methods (e g. vocal music and model drawing), there should have been manifested such an imperfect conception of the actual condition of primary schools. Desirable as it may be now, and attainable as it may be hereafter, no one practically acquainted with the actual state of things in our schools, will hope for the successful introduction of any new method, however good it may be, which is costly in apparatus, or takes a lengthened period for its proper development and success. Much as this is to be regretted, it is nevertheless a stern reality which may not be overlooked in any efforts made to improve what is now doing, or to introduce what is new.

In the matter of drawing, few schools are in circumstances to allow, on the time-table, more than one, or at most two, hours a week for this subject, and this practical instructors know to be wholly inadequate to any real proficiency in this art. By the aid however of Mr. Tate's Expositions of the Principles, which should be the work of the Teacher *in* the school, and the copies contained in the Drawing-Book, employed as they should be, by the children, for *Home Lessons,* we have provided, both a method and apparatus, which we are sure will be found effective on a fair trial.

The expository parts of this manual are done in Mr. Tate's usual style—concise and clear. The copies for imitation are suitable for elementary schools, well arranged in a progressive series, and where necessary the "lines of construction" are given. The "Drawing-Book for Little Boys and Girls" contains in a separate form these same copies, printed on card-board, so that a fair amount of wear and tear will be secured, whether used as separate copies for Home Lessons, or entire as a Drawing-Book.

We unhesitatingly recommend Mr. Tate's "Drawing for Schools," as one of the most complete manuals of Drawing for Primary schools that we have seen, We have no doubt but it will soon be as well known by elementary teachers as the other school manuals by the same author.

The Circle of Knowledge. Gradation I, II and III, by C. Baker.—Varty and Owen.—Mr. Baker has been long known to the educational public as the talented Head Master of the Yorkshire Institution for the Deaf and Dumb. This series of books for Secular Instruction is of unique structure, an exposition of which we must endeavour to set before our readers. Each "Gradation is a separate book, thus forming what is generally designated a first, second, and third book. The lessons are 200 in number, arranged under the following heads; body and parts, food, clothing, habitations, education, mammalia, birds, reptiles and fishes, insects and worms, plants, the earth, substances, air and heavens, time, climate, social life, government, foreign nations, trade and commerce, matter, mechanical powers, senses, and attributes of God.

The peculiarity in this set of books consists, in each of the series containing precisely the same lessons in different degrees of development. "For the junior pupils a mere outline of simple facts is drawn up in short sentences; the lessons in this series abounding in nouns. For pupils a little more advanced in knowledge, additional information is embodied in lessons with longer sentences. For pupils of a higher order still, the lessons are amplified by extended details and additional facts, conveyed in language less simple, and requiring a greater exercise of the reasoning powers."

Mr. Baker thus remarks on the advantages of this plan, "the advantages resulting from such a course of lessons are obvious. The mind of the teacher is thereby directed to one subject only, for as many classes as can be thus occupied; and the illustrations and explanations requisite for one class will be suitable to all. The elder pupils will derive advantage from the simplicity with which the teacher treats each subject for the youngest; and the youngest will have their views enlarged by the expositions which are given to the more intelligent scholars. The simultaneous examination of the several classes upon each lesson will save time, and awaken the interest of both teachers and scholars. Questions adapted to the respective acquisitions of the pupils should be proposed so as to give even the youngest an opportunity of answering, and so as to awaken the ingenuity of the eldest."

It is almost unnecessary to add that in working out this conception Mr. Baker has been eminently successful. The best proof of this success is found in the faaourable testimony borne by those teachers who have adopted the "Gradations" in their schools.

When a truer estimate is formed of the importance of *intelligent* reading in schools for the working classes, the "Circle of Knowledge" will yet more rapidly increase in public favour. To all who *teach*, as well as *keep* a school, these "Gradations" will have a special interest.

Questions on Generalities (Second Series.) Key to Questions on Generalities. By G. M. Sterne.—Longman and Co.—These "Questions," in number about 2500, are thus classified: chemical and philosophical, derivation of words, modern, ancient, and sacred history, astronomy, natural history, geology and physical geography, and chronology. The questions proposed in these subjects are intermingled, and intended to be given out, some few at a time, and written replies brought in. Both in matter and construction they are mostly good, and in middle schools would form an effective and valuable exercise, supposing the teacher is at the pains to examine carefully the replies given. To such schools and to such teachers we can commend them.

School Poetry. National School Society.—Intended as we suppose to be introductory to a larger volume published some little time since. This selection of little pieces well answers to the title—School Poetry. Many of the pieces were favorites when we were boys, and unless boys are very different from what they were wont to be, will be favorites still. The words difficult for children to comprehend, being derivatives, are in foot notes rendered into their Saxon equivalents. This little collection of school Poetry should find its way into most elementary schools.

Introductory Lessons on the British Constitution.—Parker and Son.—"These lessons appeared first in successive numbers of the periodical called the "True Briton," and are designed as a sequel to the "Lessons on Money Matters." A good book on a good subject, though to our minds it would have been better, had it given a completer view of the British Constitution. It seems to us that a chapter is wanted on the liberty of the subject; this point is noticed, but only incidentally. We think however, that for the object proposed—"elementary instruction," a clear and *full* exposition of this part of our Constitution is not second to any other. The chapters given treat with great simplicity and force on the Sovereign Power, House of Lords and Commons, and the Administration of Justice; this is well, but after all is but the legislative and executive machinery, so to speak. For elementary instruction we want not so much, this higher constitutional knowledge, as that which concerns the every-day life of the common people; such for instance, as a knowledge of the Great Charters which secure the liberty of the subject—to what extent that liberty extends—how an Englishman's birthright in this particular is superior to that of most others—under what circumstances that liberty becomes forfeited—the functions belonging to the office of constable, justice of the peace, and the subordinate courts, and thus upwards till those offices and courts, of a more important character, are reached. In a series of this character there would be a natural and interesting progress from the executive to the legislative; we should begin upon common ground, and might hope to excite sufficient interest in the learner to lead him on to new regions. Notwithstanding the defect we have named, these Introductory Lessons are very good, and should be in the hands of all pupil teachers and others, who do not possess more extensive works on the Constitution.

Decimal Money Tables.—Tallent and Allen.—By these tables any one is enabled "to convert at sight English money into Decimal money, without any immediate change of the present coins of the Realm."

TEACHING OF COMMON THINGS.

Your mission is to assist and complete the home education Your care should be so to work as to stimulate rather than impair the instinctive craving for knowledge; the vigour of the attention, the retentiveness of the memory, the practical character of the understanding. You will do this best if you take the successive facts in the child's life; facts with which he is familiar, and upon his knowledge of those facts you engraft first the principle or theory which explains them, and then all the kindred facts—deductions from the same principle—which may be useful in after life. For example: the child seeing the fire kindled by his mother at the bottom of the grate, and asks why. She cannot tell it why, but you can; you can do more,—you can not only explain why fire spreads upwards rather than downwards, but having done so, you light, by way of further illustration of the principle, a strip of paper; you hold it with the flame downwards, and show how instantaneously the whole is consumed. You light another and throw it on its side; it scarcely burns. You then proceed, upon these facts witnessed and understood, to build up other kindred facts hitherto unobserved, but good for use and improving to the intelligence. You show how, if a girl's frock catches fire, she should at once, in obedience to this same principle, be, like the paper shred, laid flat; and then you might farther show how, in conformity with a second principle, illustrated by the way in which a candle is put out by an extinguisher, the air might be excluded from the burning frock, by throwing a cloak or mat over it, and the flame extinguished. Take another case. As the flame of the candle used up the air confined under the extinguisher, and went out, for want of more, so we also, sitting in large numbers in a small room, use up rapidly the vital part of the air, and sicken for want of more, and would absolutely die, were the doors and windows altogether air-tight.

Again: water is brought in for breakfast. The child has pumped it. He has seen the pump repaired, and witnessed how his father strained to pull up the very same sucker by hand, which, by the help of the pump-handle, he has been working up and down with ease. This is one familiar fact whereon to rest the knowledge of the lever. The use of the spade presents another, when it enables the child to tear up a block of clay from its adherence to the soil beneath, which block he would vainly attempt to lift afterwards one inch with his hands. The water is put into the kettle, of which the bottom is purposely left uncleaned, on the plea that the water will on that account boil the more quickly. You confirm the fact; you explain why this is the case, and you show that two principles are involved; one principle teaches, also, that paint exposed to the sun should be of a light colour, in order to stand without blistering; the other principle leads to the further result, that a bright metal teapot will retain its heat longer, and therefore make better tea, than one of crockery, black and unglazed.

Again: the water boils in the kettle by the same law which diffuses the warmth of the fire in the room, and creates the draft in the chimney. By this law the cause of smoky rooms and ill-ventilated rooms may be explained, and the proper remedies suggested.

If you wish to teach geography and the use of maps, construct the first map yourself on the black-board, with the assistance of the children. Place the school-house or church in the centre, represent the roads leading to them, and then call on each boy to suggest some other landmark, to fill in the plan. You may take this opportunity of familiarizing your pupils with the technical terms expressive of the relative positions of roads, rivers, and other objects; such as *parallel with*, *at right angles to*. Technical terms, which are only compendious forms for the expression of familiar ideas, should be carefully taught as rapidly as the ideas themselves become known and serviceable.

For the same reason, the classification of things familiar, which facilitates thought and simplifies the mode of expression, should also be communicated. Such as the classification of matter into organic and inorganic, of life into animal and vegetable, &c.

Social questions are more difficult, not because it is less easy to explain them, but because the minds of children are less interested by their discussion. The child understands when and why nuts are cheap. It would be no difficult task to extend the results of superfluity on price to the effect of over-population in the New Forest, numbers, exceeding the demand for their labour, have been attracted by the prospect of enjoying for their pigs, and geese, and ponies unstinted rights of common Again, the child knows by hard experience that the family must go on half rations when bread falls short on Friday night, and the shop gives no more credit. But ask it what England must do when there is but half a crop? Ask it who will do for England what their mother did for them, when she prevented them from consuming all they had at one meal? You may perhaps lead them, step by step, to see at last that the rise of price is our only safeguard against famine, and that this rise of price is not the work of any one man or of any set of men, but that it originates in the expectation of those who hold corn that they will sell dearer if they sell later. You may perhaps succeed in showing, further, that God has not left the many to be preyed upon by the avarice of the few; that, on the contrary, he has so ordered things in this case, and indeed in all other cases, as to make it the interest of the few to consult the interest of the many, and to visit with actual loss those of the few who, out of ignorance, act in opposition to the interests of the many. If, for example, Farmer Styles holds back his supplies in spring, and, by refusing to sell at the price then offered, raises prices to such an extent as to prevent the spring from having its full share of the year's supply, the part of that share which has been unconsumed will be added to the share of the summer, and prices will then fall, when Farmer Styles expects to sell at an enhanced price.

You may thus go on founding the unknown upon that which is known and familiar, gratifying and exciting, but never satiating the natural appetite for knowledge, inculcating what, once heard and understood, will never be forgotten, at the same time that you cultivate those faculties which distinguish the man from the brute; and you impart an elevation, a self-reliance to his character which will tend more than anything to raise him above sensual pleasures. By such training as this you will give him more than mere information—you will give him habits of observing, reflecting, and acting for himself.

By adopting my suggestions you will not satisfy the majority of those who attend annual inspections. Their admiration is reserved for the brilliant results which are to be exhibited by drawing from the minds of children thoughts transplanted there without roots, the produce of wiser minds. Your pupils will be of altogether a different stamp; they will know comparatively little, but the notions they have will be of home growth, of slender immediate apparent value, proportioned as they must be to the infant minds in which they have sprung, but capable of subsequent development, to meet the emergency which may require their use.

The man of sense will distinguish at a glance their earnest, intelligent eye, their alert manner, their pertinent answers. He will give due credit to your work and to your system; but you must resign yourselves for a time to the fate of being decried and slighted by the majority, who are too apt to value things as they are, not as they are destined to be, and, above all, to underrate the sure and slow growth which is generally the characteristic of the highest merit. Our busy thoughtless world is too disposed to despise little gains, and yet little gains store most wealth; little moral gains triumphs over petty temptations, make the firmest characters. So also little intellectual gains, made hour by hour, and minute by minute, at every step in life, the result of early habits and wise education, do more to ripen the intellect and even to mature the character, than any instruction that can be hammered in from without .

It is given to you, teachers of the rising generation, to bend their minds in this direction. The misery which can be remedied by the charity of rich men is purely physical, the relief can extend only to few; it neither elevates those who receive it nor their children after them. But the misery which the teacher can avert, by substituting self-support and self-respect for dependence and beggary, has no limits to its amount; it multiplies blessings both on the present and on succeeding generations.—*Speech of Lord Ashburton.*

EXAMINATION PAPER AT A NORMAL COLLEGE.

APRIL, 1854.

SCRIPTURE AND LITURGY.

SEC. I.—1. Give the substance of the promises made by God at various times to Abraham, Isaac, and Jacob.

2. Give examples from the books of Genesis and Exodus of intercessory prayer.

3. Mention all the notices we have in Scripture of the offering of sacrifices before the giving of the law.

SEC. II.—1. Relate the principal events in the history of Lot. What lessons may be derived from this narrative?

2. State the circumstances attendant on the giving of the law at Mount Sinai. Answer from Scripture St. Paul's question—"Wherefore (then) serveth the law?"

3. Refer to passages of Scripture which throw light upon the following subjects:—Abraham's journey from Ur to Canaan; Jacob's wrestling with the Angel; the history of Cain and Abel; Moses' life in Pharaoh's court, and flight into Midian.

SEC. III.—1. Write down as much of the life of St. Luke as is found in the Acts of the Apostles.

2. What particulars of variety do you observe between the genealogy of Christ recorded by St. Luke, and that by St. Matthews.

3. Explain the nature of "the baptism of John," and in what relations our Savour stood to it. Give also an abstract of the Baptist's preaching.

SEC. IV.—1. Relate the life of St. John, and the objects chiefly aimed at in his Gospel.

2. Explain the illustrations, both absolutely and in their context, which the Saviour borrowed from the old bottles and the old garment.

3. What instructions were given by our Lord to his Disciples on the following points:—(*a*) The subject of their preaching, both during His life, and after His removal; (b) The vicarious character of His sufferings; (*c*) Future rewards and punishments.

ARTICLES AND LITURGY.

1. What is the rule for keeping Easter? Show the suitableness of the Proper Psalms and Lessons appointed for that day.

2. Relate the hymn of Mary, commonly called the *Magnificat*. To what other song of praise does it bear a marked resemblance.

3. Write out Article II. and prove it from Scripture.

4. Give a summary of the "Order for Morning Prayer."

5. Prove from Scripture the statements of Article VII. with regard to the Ceremonial and Moral Law.

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1853 (*FEMALES*).

ENGLISH GRAMMAR, &c.

Three hours allowed for this paper.

DIVISION I.

Excellence in these answers, if combined with high practical ability, will suffice for the highest class of certificates.

SEC. I.—1. Give examples of the different kinds of verbs, and explain the grammatical terms used to designate each class.

2. What are the rules for forming the comparatives and superlatives of adjectives and adverbs? Why is the "comparative" degree so used? Can the "superlative" be called, in strict language, a degree of "comparison"?

3. State, and illustrate, by examples, the difference between "principal," "accessory," "co-ordinate," and "subordinate" sentences.

SEC. II.—Parse the following:—"Those who live in towns see few things as they came from their Maker's hands. But they must not forget who gave the materials with which those things were made."

SEC III.—Write a paraphrase of one or other of the following passages, or an analysis of the first ten lines of either of them:—

I.

He saw wide territory spread
Before him, *towns*, and rural works *between;*
Cities of men, with lofty gates and towers,
Concourse in arms, fierce faces threat'ning war,
Giants of mighty bone, and bold emprize;
Part *wield* their arms, part curb the foaming steed
Single, or in array of battle *ranged*
Both horse and foot; *nor* idle mustering stood;
One way a band select from forage *drives*
A herd of *beeves*, fair *oxen*, and fair *kine*
From a fat meadow-ground, or fleecy flock,
Ewes, and their bleating lambs across the plain,
Their *booty*: scarce with life the shepherds fly,
But call *in* aid, *which* makes a bloody fray:
Where cattle pastured *late* now *scattered lies*
With carcases and arms the ensanguined *field*
Deserted——— MILTON.

II.

Ah happy *hills*, ah pleasing shade,
Ah fields *beloved* in vain,
Where once my careless childhood strayed
A *stranger* yet to pain!
I feel the gales *that* from you blow
A momentary *bliss bestow;*
My weary *soul* they seem to soothe
And, *redolent* of joy and youth,
To breathe a second spring.

Say Father Thames, for thou hast seen
Full many a sprightly race,
Disporting on thy margent *green*
The *paths* of pleasure *trace*,
Who foremost now *delight* to cleave
With pliant arm thy glassy *wave?*
The captive *linnet* which *enthrall?*
What idle progeny *succeed*
To chase the rolling *circle's* speed,
Or *urge* the flying ball? GRAY.

SEC. IV.—1. Parse the words in Italics in the passage from Milton, comparing the construction in the sixth line (*Part wield*, *&c.*), with that in the ninth *(One way a band*, *&c.)*, and state all you know about the three plural forms in line ten *(A herd of beeves*, *&c.)*

2. Parse the words in Italics in the passage from Gray. Examine particularly the interrogatives employed in the fifth, seventh, and eighth lines of the second stanza.

3. Parse the nouns and pronouns in the following sentence:—"Hard by may be seen a coffin, said to be the receptacle of the bones of Essex, Elizabeth's favourite, and the idol of the populace; a man, than whom we read of few more highly gifted, few, whose lives have ended more tragically."

PAPERS FOR THE SCHOOLMASTER.

No. 40 JUNE 1, 1854.

The Claims of Labour upon Christian Philanthropy.

There is no man with a spark of true human benevolence, much less of real practical Christianity, who can look below the surface and say that he is satisfied with the present condition of those whom we are accustomed to call working men. But while the sentiment is common-place enough—it is the earnest desire of many to discover where the social canker is, and to apply the remedy. There are some who will tell us that this remedy wholly lies in the building of new churches, there are others who urge us to multiply our Scripture Readers, and there are others who have a great deal to say about the drinking habits of the multitude. Now, the sincere Christian would belie his own convictions were he to speak lightly of these remedies; but we will ask, if it be true that we may build churches, and working men will not come to them; if it be true that we may multiply Scripture Readers, and they will never find the working men at home or at leisure; if it be true that no crusade against intemperance can overcome the temptation to excitement which the public-house and its boon companions offer to the jaded and overtasked operative—must we not look still deeper for the cause of that which every good man deplores, and so open the way for the application of religious appliances. It is the conviction of every thinking mind employed upon this very question, that there is a tendency, so long as labour is confined to the hand and the muscle, and the mind is left in ignorance, to degrade the working man, first, in the estimate of the employer, and then in his own. And, sure we may be, that if we would elevate him in the scale of humanity—if we would teach him a sense of his own dignity as a man, and make him for the first time to recognize and to value CHRIST as the Perfect MAN, the Divine Justifier of every noble aim and aspiration in man—we must make him look at himself as something more than a machine to be used and thrown aside, but a being as feeling, as intelligent, as capable of moral nobility and spiritual advancement as the owner of a thousand acres or the employer of a thousand workmen; nor must we forget that men take their estimate of themselves from what they see others do. We have too much despised labour, and so the labourer has learnt, from public opinion, to despise himself. From this opinion the working man needs to be raised, and nothing will conduce so much to this important end as the consciousness and the power of bringing an intelligent mind to bear upon his daily handicraft. It is well enough for inanimate matter to obey passively the laws of Nature, to be its servant, and nothing more; but God has given to every man, to every mechanic, and every labourer, something that furnishes him with a secret power over Nature, and instead of being its slave, like the wood he works on, or the iron wheel he puts in motion, he has become its ally. The man of toil who is mindless, and works simply because he must work, is a machine—a chattel—a thing; but the labourer who is intelligent, and thoughtful, and reflective, is *a man*—a man as much as the proudest statesman, or the proprietor of a dozen mills, or ten thousand acres. Nay, the honest sweat that trickles down his brow makes him more a man—living out the object of his creation, and discharging his relation to God and his race—than the capitalist who neglects the responsibility of his wealth, or the heir to estates, if they have entailed upon them the curse of idleness and unproductiveness. It is mere labour without intelligence that lowers it in the sight of mankind, as well as of the artisan himself; but let it be accompanied with knowledge and the use of the mind, and labour is a thing of admiration. Let men see, and let the artisan feel, that he understands the principle upon which he is working, whether the coachmaker or carpenter the principles of the lever or the screw, or the man at the gas-house the elements of chemistry, or the farm labourer the principles of agricultural chemistry—then, just as the cricketer feels a pleasure in his labour, because of its skill and competition, so will these men feel a pleasure and a dignity in looking upon labour as the application of their own skill; they will throw more heart into their work, and lift up their head in self-respect, sensible of their increased value to themselves, their employers, and their country, as they will also vie the more successfully with the skilled labour of the foreigner, who has the only chance of beating the British operative by being more intelligent and better taught. We must be in advance of our forefathers, and trust no longer to muscular power and national advantages, but to the skilled intelligence of the productive and artisan classes, and no more estimate the magnitude of our mills by the number of male and female *hands*, but by their heads and hearts. It is neither good commercially for the nation, nor is the moral effect upon the working population salutary, that their places should be, as now, occupied by foreign artisans, receiving five or six times the ordinary wages of the English mechanic.

And now we come to speak of the advantages that must accrue to the nation at large, both in a moral and commercial point of view, from the intellectual improvement of the industrial population. What is needed is a closer union between the capitalist and the labourer, and this can only be accomplished by raising the intelligence of the latter, so as to make him more useful to the former, and so becoming more an object of his respect—that fearful chasm between them may be filled up, and they may, without forgetting the everlasting distinctions of rank love each other as fellow-men and brothers, even while they are masters and workmen. There is nothing that threatens the prosperity of this country more than the existence of that class feeling—that widening separation of interests —which is mainly attributable to the want of sound education. A few years ago it rose in arms against the introduction of machinery, and now it threatens to transfer our prosperity and trade to Belgium, or Prussia, or America. But there is another argument in favour of the knowledge of the principles of work among the operatives of England, and it is this, we have reached our proud pre-eminence as a great commercial nation by reason of our local natural advantages. We have our iron and our tin, our coal-fields and our insular position, and these have enabled us so far to beat every competition out of the markets of the world. But a change has taken place. The discovery of steam takes away natural advantages. Then, raw material is easily transferred to another land, and if superior skill and intelligence is brought then to work upon it, we cannot long expect to retain our commercial pre-eminence. Every day discoveries tend to equalise the antecedent advantages of productions. We are now in a transitorial state, and unless you can stop that flying locomotive, which laughs and screams at the barge upon the canal at its side, unless you can bury in oblivion the secret which carries a message from London to Paris, over land and under water, before the old carrier could saddle his horse, it will not do to make our calculations as if we were living in a drowsy, sleepy age, if we would compete with France, with Belgium, with America.

There is one more motive for improving the condition of the industrial class. We should raise his material condition. No one can compute the injury inflicted on the millions through the ignorance of the first principles of health and food. A knowledge of comparative nutriment in food would teach mothers so to economise the earnings, that they should go farther to support the family, and a knowledge of this and ventilation would save many a life of a child, or change puny weaklings into robust and useful children. And, lastly, we will lay aside the expediency view—the mere bread and cheese aspect of the question—and ask why should not the working classes be taught to trace the footsteps of the Great Creator in the laws He has stamped on Nature. We should feel towards science as we feel towards religion. We do not inculcate the sublime verities of Christianity merely to make men honest, and women good housewives to their husbands, or good nurses in sickness, but to admire and know God as a Father in Heaven; and so with science, let the poor man employ the mind which he possesses in tracing the footsteps and admiring the wonders of Creative Love and Power, as he gazes on the circling rainbow or communes with the stars, instead of viewing it as an oracle only worth consulting when we wish to extract more nourishment from our vegetables, or keep our butter from growing rancid.

There is every inducement to advance the intelligence of the operative classes. In a political and a social, in a moral and a religious point of view, the interest of our country demand that we should place our artisan class on the same educated footing as that occupied by the operatives of the Continent and America. We have said *religious*, but religion scorns to speak of *interest*; it tells of *duty*. Christianity teaches us that God is the Father of us all—that rich and poor, prince and peasant, should be bound by the same common faith and common brotherhood, for the glad tidings came alike to all.

Mathematical Geography.

No. III.

Before proceeding to explain to his pupils the *polar circles*, and the subject of *day and night*, the teacher should make them thoroughly acquainted with the character and positions of the *terminator*; the boundary line between night and day. It is impossible to elucidate the above points with any force or precision without frequent reference to this remarkable line. It will not be difficult to explain, that when the sun shines on the earth he will illuminate one half of it; that the line between the dark and illuminated part will be a great circle; and that it will always be one quarter of the circumference, or 90° of a great circle, from the place at which the sun is vertical; the most important fact to bear in mind regarding the terminator. This at once defines the position of the polar circles which are the parallels at the greatest distances of the terminator from the poles. As the sun is never vertical further than 23½° from the equator, the terminator can never be further than 23½° from the poles, just skirting the parallels at these distances from the poles, when the sun is at his greatest distances from the equator. The polar circles being thus defined, their course should be pointed out, that is—the notable places through or near which they pass; and the temperate zones, and the frozen regions, with their breadth in degrees, 43° and 47°, should be explained. The pupil should be taught to view the world in two divisions—that part in which the sun is vertical (torrid zone), and that in which he is never vertical (temperate zones and frozen regions); also the leading divisions of the world, the countries, the leading ancient and modern nations, should be considered with respect to their positions in the different zones.

After the leading circles and zones have been explained and are thoroughly known and understood the pupil may be taken to the subject of *climate,* so far as that is connected with the latitude of the place; that is with the direction in which the sun's rays fall, or the elevation of the sun above the horizon. This may be illustrated by a simple drawing of a few parallel straight lines (representing the solar rays), with lines of equal length meeting them at different angles—it will be seen that most rays fall on those lines which meet them perpendicularly, as the sun's rays fall where he is vertical; and fewer as he is lower and his rays fall more slantingly; these lines may easily be made to represent the position of every different part of the earth's surface, from equator to poles, in respect to the sun's rays. A familiar illustration of the principle is afforded by the daily increase and decrease of temperature as the sun ascends and declines; also in the temperatures of different seasons, when the sun's elevation varies. The pupil may be told that this is the *principal* cause of differences in climate, but that there are other causes which interfere with its action, so that the climate is not every where exactly according to the latitude.

The pupil may now be instructed in the phenomena of day and night at the same place at different times, and at the same time in different places. For this purpose it must be made plain to him that this parallel of latitude is the circle in which he moves by the earth's daily rotation; and that any one's condition as to the day and night must depend upon the position of that line in respect to the terminator. If, during rotation, the terminator does not cross his parallel at all, he will then have no day, or no night, according as he is on the dark or illumined side of the terminator; if the terminator cuts his parallel unequally, his day and night will be unequal; if it cuts his parallel into two equal parts, his day and night must then be equal. Now there are five different conditions in which we may be as to day and night: we may have equal day and equal night—long day and short night—no night—short day and long night—no day. As the sun is never vertical further than 23½° from the equator, the terminator is never more than 23½° from the poles; hence it must always cut the parallels extending from the arctic south by the antarctic circle. This vast portion of the earth's surface, then, extending over 133 degrees of latitude, embracing the torrid and temperate zones, is distinguished by this—that during every rotation, there is both day and night, however unequal these may be. And as there are times when the terminator does not at all cut the parallels in the polar regions during the daily rotation, these regions are distinguished by this—that there are times when day or night continues for more than one rotation. The sun being vertical at the equator at March 20 and September 23, the terminator then passes through both poles, or coincides with the meridian circle; hence it then cuts even parallel equally, and *at these times* (the equinoxes) *there is equal night and equal day all over the world.* As a great circle on a sphere cuts every other great circle into two equal parts, and the equator and terminator are great circles, *day and night are always equal at the equator.* As, when the sun goes N. or S. of the equator he does not return to that line for six months, so the terminator, when it passes from the poles, does not return to either of them for six months; hence, *each pole has six months day and six months night alternately during the year, from March 20th to September 23rd.* As the terminator practically recedes from the poles, the number of parallels which he does not cross increase, till he reaches the polar circles; hence, *from the equinoxes a gradually increasing portion of each polar region has constant day or constant night, the maximum being at the solstices, when the whole of each polar region is in one or other of these states.* As, after the equinoxes, the terminator diverges from the line of the meridian circle and cuts all the parallels unequally; *day and night are unequal between these times, the maximum of inequality being at the time of the solstices.*—Hence generally, *day and night are more nearly equal as the place is nearer the equator or the time nearer to an equinox.* And as, when the terminator crosses the poles, it lies on opposite sides of the meridian circle, reckoning from the equator; *the northern and southern hemispheres are always in exactly opposite conditions as to the length of day and night.*

In this way, we believe that the teacher, with the aid of the map alone, may introduce his pupils to a vast amount of interesting and useful knowledge on the subject of mathematical geography. By proceeding gradually, not oppressing the young learner with many definitions at first, and during the whole of the lessons, connecting the lines, zones, &c., with the notable places, nations, &c. on or near them, he gives a living interest to the subject; and makes his pupils well acquainted with the general features of the earth's surface as regards physical and mathematical, as well as political geography. For, to make the pupil well acquainted with mathematical geography in this manner, he must be called upon very frequently to survey the whole of the map of the world, to name the various leading places and their positions in respect to the great lines and zones; by thus considering them in connection he associates them together in his mind, and the eye is made frequently to dwell upon the various prominent features on the surface of the earth. It seems unnecessary to pursue the subject further,—the more advanced and minute details are to be found in many works; our object has been to show how easily much interesting matter in mathematical geography might be brought before the young scholar who has no books at home, no time for home study, little time to stay at his school education; by the teacher who has only the common map of the world in hemispheres, with which to illustrate his lessons.

Philosophy of Common Things.

No. II.—ANIMAL FOOD.

In a former paper a table was introduced with a view of comparing vegetable and farinaceous food in regard to the proportion of nitrogenous and non-nitrogenous portions of their composition. The latter, it will be remembered, are useful as fuel, in the respitary functions of the animal system, of which *starch* is the great type, while the former which contain nitrogen form *food* as far as the term is used in the formation of flesh. The reader is again referred to that table before we institute a similar inquiry respecting *animal food.*

In *beef,*—there is found in its fleshy parts water and fat, as in vegetables; but the great difference consists in the double fact, (1) that the flesh possesses no starch; and (2) it possesses three times as much of the nitrogenous principle as vegetables. This principle is called *fibrin* and corresponds, it must be remembered, to the *gluten* of the vegetable. It will follow, therefore, that the pure flesh of beef has no contribution to make towards the fuel or heat of the system, yet 1lb. will be as nutritive as 3lbs. of wheaten bread.

In the *egg*,—we must of course find all that is necessary for the growth of the creature; the egg, therefore, is an exceedingly important specimen of animal food, containing as it must every constituent essential to the developement of the animal system. The *white* of an egg, which is called *albumen* from the Latin word *albus* white, corresponds to the *gluten* which has been described in farinaceous food, and *fibrin* in meat. On the other hand, we must look for what constitutes *fat* in animals in the yolk, which is an admixture of fat with albumen.

Milk—is however the character of food which, as it nourishes the animal system at the period of its most rapid developement, we must regard as a model food, whether as respects the quality of its materials, or the proportion in which they enter its composition. Now, a chemical analysis of milk enables us to detect all those essential materials. We know how it supplies *butter* which is *fat*, as well as *cheese* which is *caseine*, exactly corresponding to *gluten* or the nitrogenous flesh-producing element of wheat. We know how milk supplies a substance called *whey* which, when evaporated, yields *sugar*, and when perfectly dried, yields *ash*, the inorganic portion of our food necessary for our bones, &c.

The following table (taken from the same authority) exhibits the relative composition of the ordinary staple of human food, eggs, dried beef, and flour of wheat, oatmeal, compared with milk.

	Beef.	Eggs.	Milk.	Fine Wheaten Flour.	Oatmeal
Fibrin, casein, albumen, or gluten..	89	55	35	12	21
Fat........	7	40	24	2½	7
Starch or sugar.................	—	—	37	83½	70
Ash or mineral matter............	4	5	4	2	2
	100	100	100	100	100

Notes of Lessons.

THE BARREN FIG TREE.

LUKE xiii. 6 to 9 TO BE LEARNED.

INTRODUICTON.

Boys, do you ever wish that you had been with Jesus, as He walked through the fields, conversing with His disciples? Well, fancy yourself there.

Perhaps they were going, or had been through a vineyard, in which were fig trees supporting the vines. Jesus never lost an opportunity of teaching those around him. Now He gives them a lesson from the fig tree, as He did before from the lilies, the ravens, and the sky. Chap. xii.

LESSON.

This fig tree was not left to grow wild, but carefully planted in a vineyard, watched over, and given every advantage. What then would you expect?

That it would bring forth plenty of good fruit. So did the owner of the vineyard; but year after year He found none. At last He says, "*Cut it down, why cumbereth it the ground?*" Cumbereth—i.e., takes up the room and the nourishment which other and more fruitful trees might have.

This is a PARABLE—i.e., an instructive story, in which heavenly things are compared to earthly things.

"*A certain man,*" represents God. By the fig tree planted in the vineyard, perhaps Jesus meant the Jews, to whom God had given the Bible and so many advantages, but it means us too. Each of us is a fig tree in the Lord's vineyard. What has He done for us? Given us the Bible, His spirit, ministers, and places of worship, teachers, &c. All this that we may be *fruitful* trees. Isai. v. 4.

But what kind of fruit does God expect from us? See Gal. v. 22 and 23. Are we bringing forth these fruits? (Go through them one by one with your boys, pointing out where they most fail in bringing forth these fruits). Are we cumbering the ground, taking the place of those who would bring forth these fruits if they had our advantages? (Allude to the progress made by heathen children under instruction). Are we tempting the Lord to say of either of us, "*Cut him down?*" May we not be cut down any moment? How dreadful thus to continue cumberers of the ground! (Refer to cases of sudden death). But the fig tree was *not* cut down. Why? Because the dresser of the vineyard pleaded for it. This represents *Jesus pleading for us.* How often has He pleaded for each of you, or you would long since have been cut down in your sins. Perhaps the owner gave way to the dresser of the vineyard because He knew what trouble he had been taking with the tree. God listens to the pleading of Jesus, because He suffered for us even unto death.

But Jesus will not always plead. Gen. vi. 3. The time will come when "*the axe shall be laid at the root of the tree,*" *&c.* Matt. iii. 10. Then Jesus will no longer plead for the unfruitful tree, but He will say, "Depart from me," &c. Matt. xxv. 41.

What are the chief lessons to be learnt from this parable?

1st, The love of Jesus in pleading for poor sinners?

2nd, That He will not plead for ever, but that those who continue unfruitful will at last be cut down.

BETA.

NOTES OF A LESSON ON THE STRUCTURE OF BIRDS.

1. *The extreme lightness.*—Children see birds flying in the air, why cannot they fly in the air as the birds do? They will tell you perhaps that a bird is small and we are large. Then give them the eagle, which although a large bird, is able to go as high as any bird. Others will say, because we have no wings; and in this make the children to see that if we had wings we could not get off the ground even, and a bird is not only able to do this, but actually to fly up out of our sight.

Why is a bird able to do this? Obtain from the children that it is chiefly our bones which makes us to be heavy; and, supposing we had no bones, we should be much lighter. A bird has bones and yet it is not heavy. The eagle for instance, is not so heavy as an animal of its own size. Well, let us look at a bird's bone, and try and find out why a bird having bones is so light. Take a goose bone and break it, and we shall find a difference between it and an animal's bone—say a solid bone of an animal. What is this difference? A bird's bone is not only thin but very hollow; an animal's bone is very heavy, because solid or full of marrow. This causes the bird to be very light, and on account of this, and of its being able to fill itself with wind, it is enabled to float in the air. The children may object to a hollow bone because it would easily crack, but if any of the children have taken a hammer, and have tried to break the bone of a bird —say a goose—they will know that it will not easily break. Then again, the bird has been provided with wings, which are extremely light, and are so constructed as to be easily acted upon by the air or wind. The bones forming the wing are extremely light, but tough. (Here take a quill in illustration of the subject); and again, these are not only very light, but have feathers at the end. "It is as light as a feather."—Thus we may account for the birds being able to float and to rise so high above the earth.

2. *Shape of the body as adapted for flight*—When we look at a bird we find it has a very small round head, terminated by a sharp bill, so as to cut the air, just as a fish has a sharp head to cut the water. We shall also see that its neck gets thicker only as it reaches its shoulder, while the body is lengthened out and narrowed behind, thus admirably fitting it for the purpose of making its way through the air in its flight.

3. *Strength.*—Notice the difference between walking and flying. When we walk, we do not bear up all our weight, but only a small part; the bird, in flying, has to support the whole weight of its body, and hence it requires to be very strong, in order that it may carry itself along. Hence it has very strong muscles along the breast, in order to move its wings quickly and with force. So strong are these muscles, in proportion to its size, that a swan has been known to break a man's leg with the flap of its wing. Thus it pursues its way for a long time, without weariness, though its wings be in constant motion.

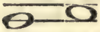
W. S.

A LESSON ON THE FIRST PRINCIPLES OF MUSIC.

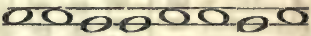
Let the teacher sing a note. Ask the children, What is it? A sound. Let the teacher now sing a long sound and afterward a short one. What is the difference? Then all sounds have not the same length. In what do they differ? In *time.* Again, let the teacher sing a lower and then a higher sound. What is the difference? In what do they differ? In the height. Now, musicians call this the pitch, so that these two sounds differ in *pitch*. Sounds, then, differ in (1) *time* and (2) *pitch*.

If sounds have different lengths, how are you to know when to stop singing? If you wished to sing a note a certain length, what must you do? If you wanted a yard of cloth, how could you get the quantity, neither more nor less. *Measure* it. Sounds must be *measured*. How can you measure sound? John, how old are you? Twelve years. A year is how many months? Twelve. A month is how many weeks? Four. A week is how many days? Seven. A day is how many hours? Twenty-four. An hour is how many minutes? Sixty. A minute is how many seconds? Sixty. How then do you measure time? By years, months, &c. Can you measure sound in the same way? Can you say a sound is so many years long, as the boy said his life was? No. Can you say it is so many days long? No. But you might keep an organ playing for several days by keeping the pipes open, and the bellows continually blowing. But still you could not do so in singing. Could you measure the sound by minutes—that is, could you say how many minutes the sound was long? Then let them try if they could make a sound a minute long, they will find that they are unable. Could you do it by seconds? Yes. Would you measure sound with a watch in your hand then? No. How are you to know the seconds? It is done by motions of the hand, or a strike called *beats*. Let teacher make several beats, up, down. We measure sound by *beats*. We say a sound is so many beats long. Teacher sing sounds of different lengths, measuring them by beats, and ask the children how long they were. Let children sing notes of 1, 2, 3, 4, 5, &c., successive beats, the teacher measuring their length by the beating of his hand. Well, now you see how the time of notes is measured.

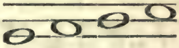
Besides differing in time, sounds also differ in *pitch*. How are you to know which is the high note, and which the lower? You may have two different things to represent the different notes. You may give them what name you please; you may call them A, B, C, &c., or 1, 2, 3, 4, &c., or anything else. Draw line on black-board. Let the line represent one sound, and the board another. Again, draw a round figure ○ to represent a sound; put one on the line, the other above; thus,



Let children sing this—



After some drilling on this exercise, the teacher should introduce another line,

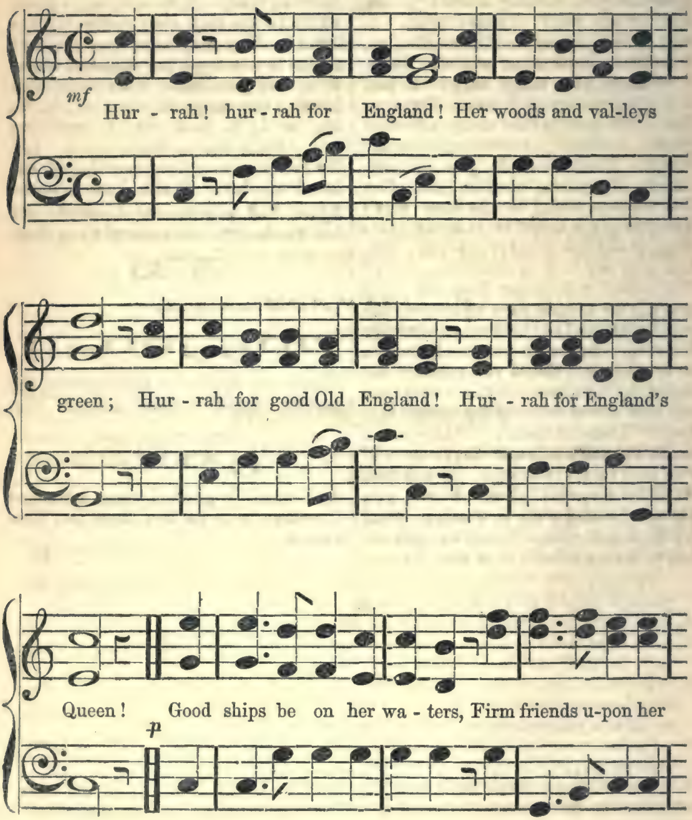


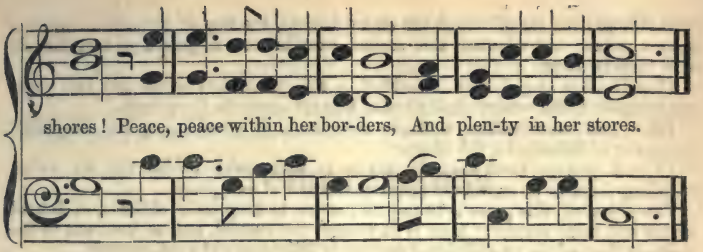
And thus, by gradual steps introduce the stave with its five lines and four spaces.

F. H.

"Hurrah for England!"

With spirit. *Composed by Henry Hendy.*


mf
Hur - rah! hur - rah for England! Her woods and val-leys
green; Hur - rah for good Old England! Hur - rah for England's
Queen! Good ships be on her wa - ters, Firm friends u-pon her
p


shores! Peace, peace within her bor-ders, And plen-ty in her stores.

2nd.

Right joyously we're singing, we're glad to make it known,
That we love the land we live in, and our Queen upon her throne.
Hurrah for merry England! and may we still be seen
True to our own dear country, and loyal to our Queen!

In last month's No., in the music, "God Teaches," substitute E for G on the word "best," p. 362, and A for C on the word "of," p. 363.

Educational Intelligence.

PRIZE SCHEME FOR THE BOYS AND GIRLS OF THE ASTBURY SCHOOL.

First.—Any boy or girl of at least twelve years of age, whose name has been on the books for two years at least, and whose conduct and attendance have been satisfactory, shall be presented with £1, to be put into the Savings' Bank in his or her name, if he or she is able, on examination,—

a.—To read, with intelligence, an ordinary prose narrative, pointing out the parts of speech in a simple sentence.

b.—To write the same from dictation, neatly and correctly.

c.—To shew such proficiency in Arithmetic as may be expected from boys or girls in the First class of their respective schools.

d.—To know the outlines of the Old Testament up to the division of the kingdoms of Judah and Israel; to know the outlines of our Lord's life, and to shew a comprehension of the Church Catechism.

e.—In the case of girls, they will also be expected to cut out and make a shirt sleeve.

I.—The Savings' Bank book will not be given to the boy or girl till two years after the examination, when if he or she is able to pass a second examination (the particulars of which are stated below), the boy or girl will receive a second prize; but whether this second examination is passed or not, the £1 will then be given.

II.—If a boy or girl, who is entitled to this prize, dies before the two years are completed, the money shall at once be given over to the parent.

III.—The examinations shall be conducted, if possible, by her Majesty's Inspector of Schools for the district.

IV,—A printed Card shall be given to those who obtain the £1 prize, entitling them to be examined again at the end of two years.

The object of this prize is to induce parents to keep their children at School longer and more regularly than is at present the custom, and to hold out to the children themselves an additional motive to diligence and good conduct.

The printed cards which will be given (even if the holders of them should not present themselves for the second prize) will form a lasting certificate of good conduct at school, and will be a just object of satisfaction both to the possessors of them and to their friends.

Second.—At the end of two years from the first examination, those who have obtained the first prize may present themselves again, and they shall receive a further prize of £2, if they are able.

a.—To pass a satisfactory examination in the same subjects as before, but shewing more ripeness of understanding.

b.—To answer questions in some higher subject of Mathematics, such as mensuration or mechanics for boys, and bookkeeping for girls.

c.—To show a fair knowledge of some one of the five following periods of English history, in connexion with the geography of Europe:

I.—From the earliest records to the conquest.
II.—From the conquest to Henry VII.
III.- From Henry VII. to Charles I.
IV.—From Charles I. to Anne.
V.—From Anne to the present time.

d.—In the case of girls, they will also be expected to cut out and make up a shirt.

I.—Candidates who present themselves to be examined for this second prize must bring with them a certificate of good conduct from their employer, and from the clergyman of the parish or district in which they may be living.

II.—The £2 shall be invested in the Savings' Bank, and then the Savings Bank book (containing a total investment of £3,) shall be given over to the successful candidate.

III.—A printed card shall be given to the boy or girl who obtains this second prize, and should any Candidate shew excellence in any one of the subjects of the second examination, a medal may be additionally awarded.

IV.—In order that boys and girls may have the opportunity of keeping up and enlarging their knowledge after leaving school, they shall on payment of one shilling, have given to them, a History of England, an Arithmetic, and a Grammar.

The object of this prize is to induce boys and girls to keep up their learing after they have left school, and at the same time to teach them habits of economy and self-respect, by making them possessors of a Savings' Bank book of their own.

The card and medal which will be given with the last prize, will be a much more valuable certificate of good conduct than the former one, inasmuch as it will extend over a larger period, and a period moreover during the latter portion of which the boys or girls will have, in some degree, been acting upon their own responsibility.

The names of the successful candidates shall be written on a framed sheet, which shall be placed in the school room, but should any one subsequently to obtaining these prizes gravely misconduct him or herself, the name of the offender shall be blotted out as unworthy of so honourable a mention.

EDUCATIONAL EXHIBITION.

The proposal of the Society of Arts, to hold an Educational Exhibition is assuming an organic shape. At a meeting held on the subject, the following resolutions have been adopted :—

1. That the proposed Educational Exhibition is intended to illustrate the condition of elementary education in the United Kingdom and its colonies, Continental Europe, and the United States of America, by bringing together complete collections of Educational appliances and objects, such as, first, models and plans of school buildings, arrangements and fittings, books, maps, diagrams, models, apparatus, &c. ; second, specimens of the work done in schools, viz., drawings, writings, needlework, &c. ; third, laws of public instruction, statistics of education, school regulations, time tables &c.

2. That the exhibition be opened in St. Martin's Hall, in the month of June, and be kept open for about three months.

3. That it is highly desirable that means should be found to render the collection permanent, as the basis of a National Museum of Education.

4. That all boards, societies, and individuals concerned in or taking an interest in education, be invited to co-operate in forming the Exhibition.

5. That all articles sent for exhibition, should be accompanied by sufficient explanatory information, as to their use ; and that those from foreign countries should also be accompanied, as far as possible, by an account of the system of instruction under which they are used.

6. That it is very desirable that articles sent for exhibition should be priced, and that the terms on which they can be supplied to schools should also be stated.

7. That, although the primary object of the Exhibition has reference to the elementary and technical instruction of the working classes, articles suitable for use in institutes, or in trade, or other schools, be freely admitted, so far as the space will allow.

8. That it is desirable that during the period of the Exhibition, lectures be delivered, and papers be read on the subject of the collections exhibited, and on the theory and practice of education ; and that arrangements be made for bringing together persons engaged in instruction, and for enabling them to profit by the information afforded, and to discuss practical subjects connected with schools.

9. That sub-committees be appointed for finance, correspondence, classification of the collection, and arrangement of the building and lectures.

Communications have been received from the Governments of France and Switzerland on the subject of the Educational Exhibition to be held at the rooms of the Society of Arts. These letters express the deepest interest in the scheme,—and offer the utmost assistance and co-operation on the part of both Governments. The official representatives of these countries at the Conference and Exhibition have not as yet been named. Sweden has stolen a march on them in this respect. The British Chargé d'Affaires at Stockholm, the Hon. C. Grey, a younger brother of Earl Grey, having informed the Swedish Government that the Society of Arts intends to hold, during the course of the ensuing summer, in London, an Educational Exhibition,—at which it is intended that the state of Education, both at home and abroad should be represented,—His Swedish Majesty has nominated Professor Siljestrom to visit, inspect aud report upon the Exhibition, and has instructed him to take with him specimens of all the books, maps, &c., used in Swedish schools, as a contribution to the show of Educational Machinery.

VISUAL EDUCATION.

At the Society of Arts, May 17, the Very Rev. the Dean of Hereford in the chair, a paper was read on Visual Education as applied to Geology, illustrated by diagrams and models of the geological restoration at the Crystal Palace, by Mr. R. W. Hawkins. The Crystal Palace, it was considered, might be properly described as one vast and combined experiment of visual education. Direct teaching through the eyes had been recognized as a principle and facility of education for some years past, even in the limited sphere of schools; and the name of Pestalozzi deserved the most honourable mention in connection with its first enunciation. His lessons on objects were urged upon the public attention some twenty years ago; and a writer quoted at the time in support of the principle shrewdly observed, that "we daily call a great many things by their names without even inquiring into their nature and properties; so that in reality it is only their names, and not the things themselves, with which we are acquainted." If this remark was applicable to our superficial knowledge of every-day objects, how much more literal did it become when applied to that branch of science which treated of the history of fossils of extinct animals that had peopled the world in ancient times. To the great majority of the public, then, restorations will present all the novelty of a first acquaintance, and even many students in geology have hitherto been unable to realize the true form and size of those extinct animals, with the names of which they might however be perfectly familiar.—*Athenæum.*

CHURCH OF ENGLAND SCHOOLMASTERS' AND MISTRESS' ASSOCIATION FOR ROCHESTER, GRAVESEND, AND THEIR VICINITY.

This recently formed Association has for its object the mutual improvement of its members, by means of periodical meetings at which subjects connected with the cause of Education are considered and discussed. The formation of a library and the circulation of Educational Periodicals. The meetings are held on the last Saturday in each month in the National Schools either at Rochester or Gravesend. The co-operation of all clergy and of those in the scholastic profession in connection with the Church of England is respectfully solicited by the Committee. The Ven. the Archdeacon of Rochester has kindly consented to become President.

James Graham,
St. Nicholas Schools, Rochester,
Hon. Secretary.

NOTICES OF BOOKS.

The Treasury Harmony of the Four Evangelists. By R. Mimpriss.—Varty and Co.—We suppose that most teachers are acquainted with the "Continuous History of the Holy Gospel in the Words of Scripture, according to Greswell's 'Harmonia Evangelica,'" by the same author. The purpose of that work was, to arrange the events in chronological order, and at the same time, to unite in the same narrative the Holy Gospels. In this way additional interest and exactitude were given to the study of the writings of the Evangelists. Many little incidents which in an ordinary reading would have been but slightly noticed, were by being connected with the parallel passages made to give not only fullness, but in many cases great illumination. In fact, it is only by such a "Continuous History," or by a laborious comparison of the Evangelical parallels, that a complete view can be obtained of Gospel History. The large sale of the work now alluded to, has induced Mr. Mimpriss to base on it a very elaborate and comprehensive structure of exegetical notes and practical reflections.

The entire work is very appositely termed a "Treasury:" in the expository part it is remarkably full, and by the concurrent testimony of a host of the clergy, as good as it is complete.

With regard to the structure of the "Treasury Harmony;" we have already spoken of the mode of arrangement employed in the *text.* The text occupies on an average about one sixth of the page, the remaining portion being filled with notes of different kinds. First are Scripture Illustrations; these are strictly scriptural, being all drawn from the text; not merely references, but actual quotations of parallel or illustrative passages. Next in order are Notes Expository, supplying information on the subjects of History, Geography, Manners and Customs, and such other exegetical matter as any obscurity or difficulty in the text may render necessary. At the foot of the page are "Practical Reflections." more or less full according to the character of the text. To each of the Sections is prefixed an introductory analysis, and at the close is placed an 'Addenda' consisting of enlarged information of an expository character, but which on account of its extent could not find a place among the foot notes. Those persons who have not actually seen the work, can hardly conceive the amount of most valuable matter brought together in a volume. The pages are literally crammed, and yet so clear is the arrangement, and so beautiful the typography, that it is a perfect gem amongst books.

It would be superfluous for us to dwell on the merits of the "Treasury Harmony" as a guide to a full knowledge of Gospel History. This has been already determined, by no inconsiderable portion of the British Clergy. We have ourselves carefully examined it in different places, and think this high opinion formed of its merits a correct one. We cannot hesitate to recommend this work as one which no elementary teacher should be without: it will, as its name denotes be a "Treasury," from which "Notes of Lessons" may be drawn in great variety and number.

The Advanced Prose and Poetical Reader. By A. W. Buchan.—Simpkin and Co.—The compiler of this Reading Book is master of one of the parish schools in Glasgow, and from the preface appears to have just views of his profession, and the proper character of school apparatus. The following remarks will be approved of by every practical teacher. "The powers of the mind come into operation gradually and in invariable order; and at the age of eleven and twelve years the fancy and the affections are more particularly active; but, the dry language in which scientific truths is often conveyed, with page after page of history, in which names and dates are for the most part the only things ever meeting the eye, are neither suited to charm the one nor engage the other. 'It is no wisdom'—says Dr. Arnold, 'to make boys prodigies of information; but it is our wisdom and our duty to cultivate their faculties each in its season—first the memory and imagination, and then the judgment; to furnish them with the means, and to excite the desire of improving themselves, and to wait with confidence for God's blessing on the result.' We do not quarrel by any means with the 'Intellectual' system of Education, and with the use in schools of treatises on science, but we would have such books put into the boy's hand *after* he has learned to read freely, and has picked up the meaning of a good stock of common words, and when reason and judgment have more *decidedly* asserted their sway."

The *matter* of the lessons is characterised by variety and appropriateness; the poetry is mostly well selected, and most of it rather superior. In the *arrangement*, the compiler has followed the sectional method, dividing the contents into Religious and Moral, Natural History and Physical Geography, Science and General History, Rhetorical Extracts and Poetry. At the head of each lesson is given an expository note, or a list of derived words with their roots; at the end of the book is an extensive Vocabulary, containing words of Saxon, Latin, and Greek origin, so arranged that the derived words with their power in English, fall under their respective roots. Mr. Buchan's "Reader," for matter and arrangement, is greatly superior to some of the Lesson Books now in use.

The Typographical Pronouncing System of Reading.—Reading Lesson Books. Part I. and II. By Rev. C. J. F. Taylor —Grant and Co.—The first of these books is intended to develope the system, and to supply the elementary lessons. These lessons advance to higher grades of difficulty in the "Reading Lesson Books." In setting out Mr. Taylor endeavours to make out a necessity for some new efforts being made to supply an efficient apparatus for teaching to read. No part of the work proper to elementary schools has given rise to so many plans for its accomplishment; the greater part, however, of these schemes have grown out of Phonic Theories, based on the analysis of sounds. Very clever many of them, we allow, and very expensive too in their production; and yet nothing is more evident than the fact, that in every case a very cool reception has awaited them. We had concluded, after the failure of the Phonic System, promoted by the Committee of Council on Education, there would not be another attempt made in the present generation; the publication of this set of books shows our conclusion to have been premature.

The peculiarity of the "Typographical System" is not a new one. In the case of *silent letters*, the level of the line is broken; thus, suppose the word to be eight, the letters *i g h* stand on a level with the top of the *e*. The *different* sounds of the vowels are indicated by the use of little hooks, crotchets, lines, and curves attached to the letters; and occasionally by the introduction of forms, of the letter, differing from the original, but not sufficiently so, to prevent their being recognised.

Mr. Taylor is most sanguine as to the results of his system. His words are, "nothing but unalloyed benefit can result even from its partial adoption." We confess, we cannot persuade ourselves to adopt the author's conclusion. To us, it is very questionable whether there is any *necessity* for alphabetical teaching. Most teachers of any mark have discarded it, and found the "word system" far superior. Neither do we think the "barbarous pronunciation in all parts of the country" is at all connected with the want of a Phonic System in schools; the pronunciation of the common people is fixed by that of the district in which the rearing takes place, and we may safely suppose that a change of dialectic peculiarities will result only after a succession of many well-instructed generations. Dean Swift says a provincial accent is neither a fault, nor in the power of its possesor to remedy.

Though we differ in some points with the promoter of this system, we most readily accord to him the merit due to the great interest he feels in the question of instruction, and his ingenuity and labour in setting forth this variety of the Phonic System. We cordially recommend the set of books to teachers, as being fitted to enlarge their views on a subject of great professional importance.

Common Things: a Letter to the Right Hon. Lord Ashburton. By C. Baker.—Varty and Co.—This letter should be read by all elementary teachers. Mr. Baker has in a few pages given expression to many sound truths in connection with education in elementary schools. We hope most earnestly for the sake of the cause of popular education, that the movement now in progress may be successful in bringing back such institutions to a more healthful condition. Undoubtedly too much has been attempted, and too little has been accomplished. The Rev. Canon Moseley in one of his reports remarks, that the idea of popular education has too much consisted in fragments broken off from the higher schools. This wants correction. A course should be set out, adapted to the present condition of schools for the poor. This course should be limited to matters *essential* to the working classes, so as to set aside what may be merely desirable, but cannot now be accomplished. Perhaps nothing is so dismaying in an educational point of view, as the attempt now making in most schools to cram in snatches of all subjects. Nothing under such circumstances is well done, and moreover a habit of surface knowledge is engendered. Let "Common Things" and common subjects, be the subjects taught. It is only when these are thoroughly taught, that a proper foundation is laid for a progressive education through life.

Church of England Sunday School Quarterly.—No. XXV.—169, Fleet Street, London.—This number contains an average of valuable papers, and Sunday School information. The concluding article on "Mormonism" should quicken the zeal of all parties engaged in the instruction of the people. That a continued stream of "Latter Day Saints" should have continued for years to pour out its thousands, is one of those startling facts which it is difficult to explain. We trust this series of articles will be fruitful in opening the eyes of a numerous class of readers to the principles and practices of this system of enormities.

Distinctive Features of the Sunday School System. By J. G. Fleet.—169, Fleet Street.—This tract contains the substance of a lecture delivered to the members of the Sunday School Institute. The subject of "Distinctive Features" is fairly handled, for whilst the special advantages of such institutions are vindicated, their weaker points are pointed out with impartiality and candour.

Correspondence.

SIR,—Would any of your correspondents, through the medium of your "Papers for the Schoolmaster," give such information and advice as they may think necessary under the following circumstances.

The inhabitants of the village in which my school is situated, consist, for the most part, of fishermen who, owing to the want of opportunities of receiving instruction in their youth, are now in a deplorable state of ignorance During the summer months, which are the busiest part of the fishing season, these men have very little time on their hands; but, in the winter months the greater part of the long evenings is at their disposal. At present this time is spent in the neighbouring public houses; not so much, I think, from fondness for strong liquors, as from a *want of some other channel, into which their energies and spare time might be profitably directed.*

Having carefully considered the matter, the questions which occur to me, are—

1. What is the *best* thing *to be* done to remedy this state of things?
2. How can it *best be* done?
3. How is the interest created in the winter evenings, to be sustained through the summer?

Perhaps some of my Fellow-teachers, who have laboured under similar circumstances, can from their own experience, supply me with the requisite information. To such as will do so, I shall feel truly thankful.

Hoping that you will kindly insert this in your valuable periodical.—I am, &c.,

NESOS.

Sir,—During some considerable time past I have been fully sensible to what I think is a disadvantage in our lessons on animals, resulting from, I think, "the classification" thereof. Our classification is as follows:—

a. Structure: appearance.
b. Habits, including the manner in which it is taken: Food.
c. Locality of Production.
d. Uses—the lesson it teaches.

It will be perceived that the "Structure" is taken "alone." The preceding classification might very well suit the enquiring minds of youths 13 or 14 years of age, and not only be very instructive to them, but would be very "interesting." When, however, it is brought to bear upon tender minds (tender, because not containing much knowledge of any description) it appears dry as it were; or, instead of being delighted with the prospect of having an animal lesson, they are always willing to get from the "scene of words without (to them) any ideas."

Cannot this be remedied by associating with the "structure" the "habits," not "after," but at "the same time as the structure is considered"? Would your correspondents give me a classification suited to minds of 5 to 9 years old?

By furnishing me the information thus required through the medium of your valuable Papers, would oblige yours, G. H. F.

Sir,—Permit me to offer my thanks to those correspondents who have answered my enquiries relative to the proportionate increase of oxygen in winter. Chemicus appears to think that I alluded to the proportion between oxygen and other gasses in winter, whereas my statement concerned the amount of oxygen in a given quantity of air in winter compared with the amount of oxygen in the same quantity of air in summer. I did intend, however, not only to ask "Where does the oxygen come from?" but also "Where does the carbonic acid gas, which we exhale, go to in winter?" It certainly is not received by the leaves of trees. I am only referring to a quantity equal to that, which in summer helped to form woody fibre. I am, sir, yours, &c.,

T. W.

[Since the geometrical difficulty which T. W. puts to our readers admits of a very easy solution, we think it better to refer him to any mathematical friend than to insert it. He should observe that in the case he supposes, the two angles which must be shown less than two right angles lie on the left side of the cross line.]

SET OF QUESTIONS AT THE EXAMINATION FOR THE ASHBURTON PRIZES.

For proficiency in the teaching of "Common Things"—held for Schoolmasters at Southampton, by the Rev. W. H. Brookfield, H. M. Inspector; and for Schoolmistresses, at Salisbury, by the Rev. W. P. Warburton, H. M. Inspector,—21st April, 1854.

SCHOOLMASTERS.

Morning—Three Hours allowed for this Paper.

Two Questions to be answered out of each Section and others as time may permit.

Section I.

1. Define the following words and phrases, and illustrate your meaning by

their usage in matters of social life:—skill—industry—economy and forethought—wealth—money—value—price—labourers and employers of labour—capital and capitalist.

2. What is the usual consequence of an abundant or deficient harvest upon the price of food? and upon the wages of labour?

3. What is meant by division of labour? and show the importance of this in advancing the wealth and well-being of a nation.

4. What are the principal conditions of industrial success among the labouring classes, and what kind of training in early life is most likely to lead to it?

5. What are the necessary qualities of the food of a people, in order that the supply may be permanent? and how do foods for man and beast vary in this respect?

6. What metals are the most useful? Mention the particular properties which make them so; and give the outline of a lesson on iron or lead, and its uses, from the state of ore up to a knife-blade, or sheet-lead.

SECTION II.

1. Point out the different ways in which the air in a dwelling-room is rendered impure, and the best way of ventilating the room?

2. What are the best materials for building a cottage; the necessary conditions of health with reference to the building; and which is preferable, a slated or thatched roof, and why?

3. What vegetables are usually cultivated in a garden? Which do you consider the most nutritious? and why? What rotation of crops would you recommend in a garden of one rood in extent?

4. What is the difference between porous and retentive soils, and how would you treat them? Explain the principle on which soils pulverize after frost, and the advantages of this.

5. Explain what is meant by a proper rotation of crops—by exhausting and non-exhausting plants. How would you ascertain what substances plants draw from the soil? and, having done this, how would you manure the land?

SECTION III

1. What are the essential properties of matter? Define and explain some of them.

2. Explain what is meant by the attractions of cohesion and gravitation, and exemplify by giving instances of each.

3. Give Newton's three laws of motion, and illustrate the last by experiment.

4. What is meant by centripetal and centrifugal forces? and show how in different latitudes the weight of bodies is affected by the latter.

5. A body let fall from the top of a tower is three seconds before it reaches the ground; how far did it fall in each second? and what was the height of the tower? If the action of gravity ceased at this point, how far would it fall in the next three seconds?

SECTION IV.

1. To which of the mechanical powers do the following implements belong:—a spade and fork in digging—the plough—the saw—the axe—a pair of scissors—a pump handle—the screw? Give your reasons in each case.

2. Explain the principle of a pair of scales, and of a common steel-yard.

3. Explain the principle of the wheel and and axle, and show how it is applied in raising up water from a well.

4. Show the use of the plumb-line, the square, and the spirit level to the bricklayer and capenter.

SCHOOLMASTERS.

Afternoon—Three Hours allowed for this Paper.

Two Questions to be answered out of each Section, and others as time may permit.

SECTION I.

1. What are the principal bones of the human skeleton? How are they kept together at the joints; and of what substance are they composed?

2. Explain the construction of the spine, or of the hand, and the mechanical contrivances for the different movements which they are intended to perform.

3. How would you judge of the habits and food of animals from their jaws and teeth? Illustrate your answer by examples.

4. What are muscles and tendons, and their uses in the animal frame? And in the movement of one bone against another in the joints, how is it they are not worn away?

5. What is the cause of a defect in vision in what are called short-sighted and long-sighted persons, and what kind of glasses are required to correct it in each? What are the purposes of the eyelids and eyelashes?

6. Point out any differences in the eyes and ears of animals which show adaption to their respective wants.

SECTION II.

1. What is the difference between an artery and a vein, between arterial and venous blood; and why is the cutting or rupture of an artery more dangerous than a vein?

2. Give your reasons for thinking that exercise is necessary, and generally beneficial to all the animal functions.

3. What is meant by respiration? Explain how the chest expands and contracts in this process? And in what does the air breathed out from the lungs differ from common atmospheric air? What experiment would shew this?

4. Does the blood undergo any, and what change in circulating through the body? And explain the functions of the heart, arteries and veins in this circulation.

5. What are the properties of milk as a food, and the substances it contains? Is it equally good at all periods of life?

6. What analogy is there between the blood of animals and the sap of vegetables? In each case mention as many substances as you can for forming which they must contain the materials?

SECTION III.

1. What are the constituent parts of the atmosphere? How are they combined, and in what way are they subservient to the wants of animal and vegetable life?

2. What is meant by specific gravity of bodies:—and under what conditions is water taken as the standard? How would you ascertain the specific gravity of substances heavier and lighter than water?

3. Explain the principle and construction of the common barometer; when the mercury stands at 28-7 inches, at what altitude would the water stand in a winter barometer?

4. Describe a common Suction Pump or Syphon; and explain the principle of their action?

5. A vessel will float on water whose specific gravity is 1, with a burden of 200 tons: what weight of cargo would it carry if floated on sea water whose specific gravity is 1.035—or on mercury?

SECTION IV.

1. What is meant by the terms "warm" and "cold;" and why do not all substances of the same temperature feel equally so when touched?

2. What is the general effect which heat has upon matter; and what are the different ways in which solid and fluid bodies are heated?

3. What are the phenomena attending the melting of ice, and heating the water till it boils away in steam?

4. Explain how dew is formed, and its effects on vegetable life. Why does it not fall equally on grass and gravel?

5. What is meant by the number of inches of rain which fall during the year at any particular place; and how is this ascertained?

6. What is meant by the solvent power of water? Enumerate the substances you know to be solvent in it. How does it affect the group of plants and animals?

SCHOOLMISTRESSES.

Morning—Three Hours allowed for this Paper.

Two Questions to be answered out of each Section, and others as time may permit.

SECTION I.

1. Define the following words:—skill—industry—economy and forethought—wealth—money—and illustrate your answer by their application in matters of social life.

2. What are the principal conditions of industrial success among the labouring classes, and what kind of training in early life is most likely to lead to it?

3. What are the advantages of paying ready money in your dealings, and the disadvantages of the contrary practice?

4. What are the advantages of clothing clubs for the labouring classes, and how ought they to be conducted?

SECTION II.

1. What are the necessary conditions of a cottage, in order that it may be healthy and comfortable? What is the use of a fire-place in a bed-room?

2. Give some of the various ways with which you are acquainted of preserving meat or vegetables, so as to lay them up in store for future use.

3. Of the modes of cooking animal food—roasting, boiling, stewing—which do you consider the most economical, and why?

4. What are the nutritive properties of milk? Explain the processes of making butter and cheese, and the way in which they must be treated in order to make them keep.

5. What do you consider a proper and economical diet table for a week for a family, consisting of a man, his wife, and 4 children earnings 12 shillings a week?

SECTION III.

1. What is the difference between an artery and a vein—between arterial and venous blood?—and why is the cutting or rupture of an artery more dangerous than a vein?

2. Does the blood undergo any and what change in circulating through the body; and explain the function of the heart, arteries, and veins in the circulation.

3. What are the muscles, tendons and nerves, and their uses in the animal frame?

4. How would you treat a scald or a burn?

5. Give your reason for thinking that exercise is necessary and generally beneficial for health.

6. What are the advantages of cleaning the teeth daily? and what are the disadvantages of losing them or of their decaying in early life?

SCHOOLMISTRESSES.

Afternoon—Two Hours and a half allowed for this Paper.

Two Questions to be answered out of each Section, and others as Time may permit.

SECTION 1.

1. Draw out a series of lessons on domestic economy, such as you think would prove useful to the elder girls of your school, and describe one lesson in the way you judge necessary to impart it.

2. In what respect do you perceive the homes of your scholars to be deficient, and the teaching of your school to act as a remedy?

3. Describe the manner in which you conduct the needle-work of your school. What distinction do you make between the useful and the fancy work which the children do?

4. Give an outline of a lesson on soap, and its uses.

5. Give your reasons (if any) for regarding a popular knowledge of the atmosphere, water, heat, gases, animal economy, &c., as not unsuited to girls?

SECTION II.

1. What is meant by "hard and soft" water? what is the cause of it? and what are the effects of hard and soft water in cooking and washing?

2. What kind of substances are removed by filtering and by boiling water? Explain the process in both cases.

3. Why do woollen things shrink when washed?

4. What are the advantages of woollen and cotton things as clothing for the labouring classes over linen? and why is cotten preferred in warm climate?

5. What is the best tea-pot to use, and why?

PAPERS FOR THE SCHOOLMASTER.

No. 41. JULY 1, 1854.

Educational Exhibition.

The Educational Exhibition of the Society for the Encouragement of Arts, Manufactures, and Commerce, at the present stage of its development, is so intimately connected with the interests which are advocated in our Periodical, as to require a more prominent notice than falls to the ordinary subjects of our Educational Intelligence. A few months ago the project of the Exhibition was first entertained, and it so rapidly was found to engage the sympathies of influential men, interested in the work of popular education, that its ultimate success was soon placed beyond a doubt. An imposing array of names constituted the list of the Council, including that of Lord Granville, with the moral guarantee, secured by the Presidency of H.R.H. Prince Albert. It is well for the prospects of a nation when one so close to the throne lends the use of his name, not as a matter of ornament, but with the distinct and emphatic intention of discharging the duties involved in the title of the office which is accepted. In the present instance, the Royal President, in whose comprehensive and philanthropic mind the Great Exhibition of the World's Industry had its conception, foresaw the benefit which the scheme of an Educational Exhibition would open out to the education of the operative classes, and from the commencement displayed a deep-formed interest in the working out of the scheme. An importance could not but arise from the circumstance, to which, in a measure, must be attributed the co-operation that was rapidly awakened on the parts of the Governments of France, and Switzerland, and Sweden. We refer our readers to page 385, in our last number, for an account of the mode by which the intention of the Exhibition is to be carried out. The following list comprises the objects which have been admitted, in classified sections:

I. *Buildings or Plans*, models or drawings of buildings and institutes intended for scholastic purposes.

II. *Fittings and Furniture*, including fixed appliances for the convenience and efficiency of the School-room.

III. *Apparatus and Materials*—applicable to the teaching or practice of such subjects as enter into the routine of Naval, Military, Surveying, Drawing, or Ordinary Schools. This section will introduce instruments of measurement, globes, chemical apparatus, industrial implements, whether horticultural or of an artisan character, for the use of boys; or others for the instruction of girls in cookery and housewifery.

IV. *Books, Maps, Prints, or Diagrams*, the production of any nation, adapted to the use of Schoolmasters and Teachers generally; and of Scholars in elementary schools.

V. *Results*. A term which is intended to describe specimens of drawing and colouring, needlework, printing, work done by the blind, mapping, modelling, book-keeping, &c.

VI. *Projects for supplying Desiderata, illustrated by Specimens, Models, &c.*—Under this head are admitted laws of public instruction; statistics of education, school regulations, time tables, &c.

The space applied for by Exhibitors far exceeds that at the disposal of the Committee, notwithstanding the ample dimensions of St. Martin's Hall. The Council has fixed the opening of the Exhibition for Tuesday the 4th of July, when a *conversazione* will be held, at which H. R. H. the Prince Albert, the President of the Society, has intimated his intention of being present. The exhibition will be open to the public on the following Thursday. The following is the scale of admission, including the Lectures and Discussions:—

	s.	*d.*		*s.*	*d.*
Season Tickets	10	0	Single Admission—		
For the Month of July	6	0	On Thursdays	1	0
For One Week	2	6	On all other days	0	6

The Exhibition will remain open daily from Nine, A.M. till Dusk. Dr. Whewell, Master of Trinity College, Cambridge, and one of the writers of the Bridgwater Treatises, has undertaken to deliver the Inaugural Lecture; and Professors of high standing will follow in course during the season. The subject which Dr. Whewell takes up is the "*the Natural Helps of Education.*"

It only remains to us to impress upon all those who have charged upon themselves the office of a Public Teacher, especially such as are engaged in elementary school-keeping, the duty of making some considerable sacrifice, in order to attend the Exhibition, which will be kept open for about three months. The lectures cannot fail to prove of great utility to them; and we cannot but hope that additional lectures will be provided by the Council, and delivered by those whose office has enabled them to know from experience the character and wants of our Normal, as well as Elementary, schools. This appears, at present, the only defect in the entire plan.

Children's Questions.

As every parent and every teacher knows, that period in a child's life when thought and contemplation begin to dawn, or, as men phrase it, when they wake to reason, is marked by the impulse to ask questions. A considerable section of our instructors, in former times especially, have strongly supported the opinion that all the questions of children, however childish, should be particularly listened to, and, as far as possible, have an answer: and that nothing is more unjustifiable than to forbid children to ask questions, or punish them for so doing, as if a fault had been committed, which was the good old custom of former days.

There can, indeed, be conceived no more certain method of transforming thinking creatures into miserable mechanics. But there are two sides to every question, and the teacher or the parent can draw down no greater visitation upon himself than by making it his rule to answer every question which his children may put without regard to their sense or nonsense. They will infallibly so multiply on his hands, and at the same time so run to thoughtlessness, that at last no answer will suffice to answer them, and patience will confess to having found its greatest trial.

Certainly parents and teachers should answer their children's questions, only they must first teach them to ask them aright. How is this to be done? We should regard three points respecting them. First, *why* they are asked, whether for the sake of asking, or the sake of being answered: secondly, *what* is asked, whether a silly question, as why the chair is not a dog, or a sensible or at least but half-thoughtless one, worth an answer: and, thirdly, *how* the question is put, whether intelligibly or otherwise.

Children are inexhaustible in questions. Mark, however, that if they are allowed to ask, for the mere pleasure of it, whatever is uppermost, the multitude, and at the same time the folly of their questions will so increase, that their parents or teachers will have no other occupation for their time than to listen and reply to silly objectless queries, and themselves babble endless nonsense. Questions which are asked for the sake of asking, and not for improvement, and which have not the smallest bearing on the progress in knowing, we shall pay with the same coin: we must give them back their question, and make them pass an examination upon it. If they ask from habit without a wish to learn, we shall by the same means give them the same trouble as they us. They will find the process itself so distasteful, that they will at last come to give over the questioning from dislike.

This method of proceeding is at the same time instructive to the children; it familiarises them with their own thought, and checks their flightiness; it makes them reflect upon what they were asking, and this reflection will soon learn to outrun and precede their questions.

Say that children from six to eight years of age ask either a silly or an improper question, give them no answer. It will be possible too, as soon as their understandings are developed, and they are capable of receiving a thing as a rule, for the teacher to make his wishes on the subject of questions understood in some such way as this. "Ask what questions you please, you have once for all an unlimited permission to do so; but ask nothing silly or inconsiderate; if your questions are of that kind, you get no answer. If any question of yours is ever in future met by silence, you may draw from that the safe conclusion, that you have asked either some silly question, which deserves no answer, or something improper which you ought not to have answered."

With respect to *why* the question is asked, whether from mere curiosity, or idleness, or for the sake of knowing, it will generally be easy to ascertain its object simply by observing *what* the question is, and also what use they make of the answer given them. Lastly, arises the point *how* the question is asked. Here we must not at first expect too much, and the care of the teacher or the intelligent parent will be directed to drawing out the questions, and bringing the children gradually to observe method, that they may learn to express themselves clearly, accurately, and as far as possible logically. Habitual clearness and method in questions is not only good in itself, but will also insensibly produce in the children clearness and method in thinking, and so in expression.

It will be often difficult to ascertain, in the case of questions not clearly put, whether we ourselves have correctly apprehended them, and so whether our answer is to the point, especially when, as is often the case, children make no reply to the explanation.

To the foregoing rules may be added the following: often give to a child's question an answer which is no answer. Then comes the short convincing "but why?" Then lead the child on from that to seek for the answer himself, or put a book into his hand which contains the information desired.—*From the German.—Encyclopædia of Education.*

THOUGHTS ON THE DUTIES OF THE SCHOOLMASTER, &c.

No. II.

(Continued from the May Number.)

There is another evil from which the Elementary Schoolmaster suffers, which remains to be noticed. He enters upon his work fully alive to the importance of his task, and anxious to perform his work in the most effective manner. The question naturally occurs, "How can I best carry on this important task?" By what methods can I secure the greatest amount of good?" But where is the reply? He turns to Educational works for a solution, and there finds methods proposed as many and various as could well be conceived; some directly opposed to each other, and each held up as *the best* and only certain method to be pursued. Some of these are mere theories; plans which never existed, save in the brains of the theorist, and on the pages of the volume in which they were propounded; plans first conceived in a sombre study, adapted to an imaginary class of beings, and actually vanishing before the noise and reality of a school, while others make pretensions to practical merit, and are reported by their Author to have been carried out with the most complete success. His contemporaries are working in numerous different ways, aiming virtually, if not confessedly, at different results, holding various views, and recommending different plans. He turns to our Training Institutions, but finds that, instead of unity and certainty, each institution possesses its own peculiar merits, which it pursues with earnestness, each thinking itself superior to the others; so that he is left to choose between the Cheltenham and the Glasgow, the Battersea and the British, and many other methods, with their various plans of organization, methods of communication, &c. &c., without apparently any broadly marked principles by which he may test the one or the other. He turns to the Reports of H. M. Inspectors, thinking that there he shall obtain the definite information he requires. But though there he finds much that is useful and invaluable, still he is necessarily bewildered by conflict, and every variety of opinion, where he might have expected definite and distinct ideas. One plan is held up as perfect, and in another place condemned. Perplexed and confused, the unfortunate enquirer is almost tempted to throw aside his books, and abandon his search in despair.

The Philosopher, in his experiments with matter, has certain fixed principles on which he rests, and he aims at no undefined results, nor acts upon uncertain laws. The physician, in his dealings with the body, proceeds also on fixed principles. He knows the nature of the disease, the character of the remedy required, the course his medicines will take, and the symptoms they will produce: but the Teacher, who has a higher and nobler sphere of action, who produces effects more lasting and important, who has to deal with mind and soul, and whose influence consequently stretches beyond the confines of time, alone acts uncertainly, and beats the air, his mode of operation undecided, his plans uncertain, and the result fortuitous.* The science of Education, scarcely inferior to any that exists, is also the least studied, and the most seldom applied. Is not this an evil which we, Britons, Patriots, Teachers, Educators, are bound to endeavour to remove?

Thus we have briefly noticed a few of the dark spots on our Educational escutcheon. To use the beautiful words of the poet:—

> "As dew and rain, as light and air,
> From heaven Instruction came,
> The waste of nature to repair,
> Kindle a sacred flame:—
> A flame to purify the earth,
> Exalt her sons on high,
> And train them for her second birth,
> Their birth beyond the sky."

But we have seen that she is hindered in the discharge of this noble task by the opposition of her open enemies, the hidden enmity of her disguised foes, the mistaken zeal of her erring friends, the want of sympathy and encouragement experienced by her instruments, the ignorance and indifference of parents, and the want of unity and fixity of purpose amongst Teachers, as well as of the study of her great and leading principles. Does not all this point out clearly the great necessity for improvement?

And where are we to look for this improvement? Undoubtedly it must come mainly from Teachers themselves. Statesmen and politicians, governments and committees, inspectors and school managers, associations and societies, may do, and are doing much, but the Teacher is evidently *the* workman, and the main portion *must* be done by him. Mathematical Science has been improved by Mathematicians, Medicine by Physicians; the Engineer has improved Engineering, the Chymist, Chymistry, and the Philosopher has raised Philosophy to its present useful and dignified position; and, in like manner, we must look to the *Educator* to exalt and improve Education. To help forward this improvement is the Teacher's paramount duty, and at the same time, his highest privilege. It becomes needful then to enquire: "How can he discharge this important duty?"

Taking the order in which we spoke of the things requiring remedying, we have first to notice the Schoolmaster's want of sympathy and cordial friendship. The causes of this are too numerous to be all noticed; but perhaps the most important is, that the importance of his work is not properly appreciated, nor his real *character, capabilities, and influences fully known.* He is seen through a false medium, and appears under a wrong character. To obviate this he should endeavour to obtain from society an appreciation of his office, as it is. He should not *assume* position, or demand a different treatment, but make his conduct such as shall lead society to yield to him his due. His conduct and manners should be such as to convince others of the transcendency and importance of his influence and office. He should be obliging, courteous, respectful, and alive to all the suggestions of propriety; his conduct should be elevated, yet humble, modest, and unassuming, but energetic and persevering:

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* See "Papers for the Schoolmaster." Vol. iii., p. 177.

such as shows a sense of his responsibilities, and the importance of his office, without the least appearance of pride; a careful desire in reality and in outward manner to render, for its own sake, and for the sake of his children, honour to whom honour is due, to accept cheerfully all proferred aid or advice, yet a determination to decide for himself, within proper limits, what he has been taught, and believes to be right. In short, his conduct should be such as the worthy and considerate cannot but admire; his character that of a refined and cultivated mind; his whole deportment, under all circumstances, such as would adorn a cottage, and would not disgrace a hall.

Again, by a careful attention to, and efficient discharge of his duties, he will show himself fitted for the work he has undertaken, and be respected accordingly. By being ever ready to assist enquirers, to amuse and instruct by his conversation, to take part in works of private munificence and public utility, to advise in cases of doubt and difficulty, and help forward all useful plans for the physical, mental, or moral improvement of the people; he will do much to secure a circle of real friends, and to give high views of the Teacher's capabilities and province. In these and similar ways, he will be able to come in contact with the public mind, and so to correct its misconceptions, to eradicate its prejudices, and to remove its misgivings. He will secure confidence, and thus obtain credence for his opinions, and be enabled to urge the claims of Education, so as to infuse something of the Educational interest into many minds, lead others to take an interest in the subject, and promote a kind of advantageous unity between the Teacher and other classes of society.

And having thus gained confidence and esteem, he will be able to discover and nullify the efforts of disguised enemies, and to expose them, and hurl their secret darts on their own heads. He will also be enabled to guide the misguided zeal of others into its right channel, to show where they err, and make them beneficial instead of injurious. These, and many other advantages, the Teacher will gain by such a course of conduct

With respect to those who openly oppose Education, but little need be said. The Teacher should be well acquainted with their arguments, and able to reply to them. But the meetest and most effective instrument at his command will be those practical results which he can produce in his school; an obvious proof of the value of education, which no sophistry can oppose, no argument answer.

We come next to the ignorance, and consequent indifference of Parents, the result of which is a ruinously irregular and short attendance. To obviate this, the Master should secure the respect of the Parents, and lead them to see something of the value of knowledge. He may do much towards this by occasionally visiting these parents, talking to them kindly, and cheerfully listening to their complaints, and helping them in their difficulties, and so leading them to look upon him in the light, not of an hireling, but as one anxious for their own and their children's welfare. He should show them the value of knowledge; how that it raises its possessor in worldly esteem; how that often it is a source of wealth, and a means of advancement. He can speak of that goodly band of "self-made men" whose names are the pride of our land, and show how, by their own efforts to educate themselves, and their success in so doing, they attained a position far above that in which they were originally placed. He can point to offices of comparative importance, and pecuniary value, open to the well informed, but necessarily closed against all others; and in these, and in similar ways, he will induce them so to value the school, as to put forth efforts to increase and continue the attendance of their children.

But how much easier will this task become, if he can show that, by constant and lengthened attendance, the children become better fitted for the duties to which they are likely to be called, and that the instruction they there receive will be at once useful. And this he may do, to a great extent, by *adapting his instruction to the limits and employments of the district.* In a mining locality let him make his children acquainted with the nature and use of the minerals which abound there, and with the different operations of mining, drawing out the reasons for all the processes, and carefully tracing their results. In a manufacturing district he might explain the machinery, its construction and action, trace the manufactured article through all its stages, showing the necessity for, and the the results of each operation, and the manner in which it is performed. Connected with this (and in the former case,) should be given, the Geography of districts in which similar manufactures are carried on, or the same mineral found, with their comparative amount, and commercial destination. In an Agricultural district Agricultural Chymistry and Geology claim attention, and where possible, Agriculture should be taught practically by the cultivation of a garden or small farm. There would be taught the nature of different soils, and the nature of their appropriate manures, and the crops they will best produce, &c., the time and mode of ploughing, draining, &c., and of sowing and gathering the various articles cultivated.

Notes of Lessons.

NOTES OF A LESSON ON LUKE, CHAP. vii. 11—15.—FOR INFANTS.

The Raising of the Widow's Son at Nain.

I. *Introduction.*—In this part the eastern mode of burying should be explained to the children. People when dead were not put in coffins, as in our country, but simply wrapped up in linen clothes, which were folded around the body, and thus carried to be buried. Again, Palestine was a very hot country, and when a person died they were obliged to bury the individual very quickly, and that too outside the gates of the city; and in this way Jesus Christ met a funeral coming out of the city, as he was going towards the city.

II. *The Picture.*—Whose funeral is this? It is the funeral of a young man, who was the only son of his mother, a woman who had lost her husband. Picture out the grief of the poor woman at losing her only son, the only friend and support, perhaps, she had in this world. Most likely this woman was supported by this son, and therefore this son was of inestimable value in her eyes, especially as her husband was dead. This son has fallen ill, and dies, and is now carried out to be buried, and the poor woman now follows him to the tomb, accompanied by a large number of people, who felt for the poor woman. Jesus Christ meets this funeral, and the Bible tells us that he felt compassion for the widow, and told her to "Weep not." This expression "Weep not," seems strange; but it was intended to try the woman's faith. Jesus went towards the dead body, and the people, who felt astonished, stood still. Christ then said to the dead body: "Young man, I say unto thee arise." Directly He spoke these words the young man rose up, and began to speak, and the young man was delivered to his mother. Notice now the mother's joy at having her son alive again, and how grateful the mother would feel to Jesus Christ.

III. *The Lesson.* Jesus Christ takes compassion on those who are in distress, and if they put faith in Him he will help them.

W. S.

NOTES OF A LESSON ON A DIVING BELL.

I. *The Principles on which the Diving Bell acts.* 1. Bring out from the children the elementary truth, "that two substances cannot occupy the same space at the same time." This may be shown by a few simple illustrations, such as the following. Suppose I had a bottle or glass full of water, and wished to fill the bottle with milk. How should I do it? The children will tell me that I shall have to empty the water, before I can fill the bottle with the milk or anything else. The bottle is now full of milk, but I wish to fill it with beer, what then? The milk must be poured out. So from this we see, we cannot fill the bottle full of milk, and full of water at the same time, nor can we fill it, full of milk and beer at the same time. That is, we cannot make the two occupy the same space at the same time. This is true of any other things we may take, for instance, a man is pouring ink into a jar, which having a narrow neck, he uses a funnel, and after pouring away for a time, he finds that the ink wont run into the jar, although it is far from being full of ink. What is this owing to? Why is this? Get out from the children, that it was owing to the fact of the air being there, and which was prevented from escaping as the funnel fitted tight to the neck of the jar, and the ink ran so as to prevent the air from going out quick enough to make room for it, and hence it became so compressed as to resist the ink from flowing in, until the funnel was lifted up and allowed the air to escape.

This also shows us, that two things cannot occupy the same space at the same time.

2. *The Air is elastic, or compressible.*—This tumbler is now full of air, and while the air remains in, nothing else can fill the tumbler. Now, suppose I put the tumbler upside down, in the saucer which is full of water, what then? The water will not get in. Why? The tumbler is full of air, which is unable to escape. Let us try it, and see if such is the case. The water comes up to this part of the glass on the outside, now let us see if it comes up so far on the inside. Teacher puts a piece of paper inside at the mark, and finds it to be dry; the water has not reached so far; put it lower, the paper is still dry; lower still, at the bottom of the glass nearly; the paper is wet. Thus we see the water has got in a little way, but not to the level of the water outside. What is the reason of this? If none of the air has escaped, and the water has got a little way up the glass, what has it done to the air? It has pressed it back,—it has compressed the air, and made a little room for itself. If we had plunged the tumbler deeper, the water would have pressed the air higher up, and have risen itself in the tumbler. Now bring out from the children, that a fly might live in this glass for a few moments, and would only die when it had breathed all the air.

II. *Application of these Principles to the Diving Bell.*—Now, men seeing the fact which has been just stated, have thought that if a large vessel, something like a glass, or more like a bell, (because round on the top) were placed upside down, and let down to the bottom of the sea, the water would not get in, but the bell would still be full of air, with the exception (as we have stated) that the water would get in a little at the bottom. They have tried it and have found it to be quite correct. Just as the fly would live in the tumbler for a short time, so a man could live in this bell. This bell has two tubes, one to force down fresh air, and the other to take away the impure air, and thus men can live in a diving bell for some time.

(If there is time) state the many purposes to which the diving bell has been employed, as laying foundations under water and recovering sunken treasure.

W. S.

NOTES OF A LESSON ON THE CAT.

For Children about Seven Years' Old.

I. *Food, &c.* Now children, you all know a great deal about the animal we are going to talk of to-day. It lives with almost all of you in your homes, and little children are very fond of playing with it. Who can tell me what animal I mean? The cat. You have sometimes seen it sitting very quietly in a room, watching over a small hole, and you are not able to get it away; it will keep sitting there for a long time, and what is it doing? Looking for mice? Why does it take all this trouble to get mice, if it can get other things to eat? Because it likes them. The cat then likes mice, and therefore tries to catch them. Do you very often catch mice with your hand? Why not? Because they are very quick, and soon get out of the way. and you I suppose are not quick enough.

II. *Eyes.* At what time do mice generally come out of their holes. In the night time. Why? Because they are afraid of coming when any one is about. At what time then will the cat be able to catch the greater number of mice? In the night time. But can she work in the dark? Yes. I will tell you how it is. Have you ever held a light near your cat's eyes after she has been sitting in the dark? If you have you would see that the eye got smaller. If you took the cat from the light to a dark part of the room you would find that the cat's eyes got large. The fact is, that the cat has a kind of little curtain in her eye. When there is a great deal of light she draws the blinds to keep some of it out; when there is very little she draws them up, to let as much in as she can. Well then, in the night time, when she is looking for her food, she draws her curtains up, and lets in every little bit of light she can. Here then the cat's eyes enable her to watch for her food at the time when it is to be found.

III. *Ears.* Now look at the cat's ears, and tell me something about them. How does she put them when you call "Puss." She puts them forward, and straight up. What is that for? If I cannot hear a little boy speaking at the top of the gallery, what should I perhaps do? Put the hand to the ear, and so I should catch the boy's voice. How do mice move about? Quietly. So the cat puts her ear up, and forward, to hear all sounds better.

IV. *Feet.* Who has ever felt the under part of the cat's feet? How did they feel? Soft. Under her feet she has soft flesh. What does this help her to do in catching mice? There is a little boy whose mother is very ill, and he has to go into the room where she is asleep; what will he do so as not to wake her? Pull off his shoes. Why? Because the feet would not make so much noise as the boots, as they are soft. So the cat's soft feet help it to walk about without making a noise. What do you find at the end of these soft feet? Nails or claws very sharp and hooked. What does the cat do with these? When she is not using them where does she put them? She draws them up into her feet. Why? To take care of them; to keep them from getting blunt and broken.

V. *Whiskers.* There are some things on each side of her mouth. What are they called? Whiskers. Yes, you call them whiskers; but we will see whether we can find any other name for them. Have you ever touched them gently? Do you think that she felt it? Yes, she moved them. Then she knew that you touched them, although you did it gently. Now if the cat was walking along, and rubbed her whiskers against any thing, that would tell her to take care that she did not knock herself against it. And because she feels a thing so plainly, when she touches it with her whiskers, we call them *feelers.*

VI. *Recapitulation.*

S.

Educational Intelligence.

CENSUS OF EDUCATION.

The report of the Census of Education in England and Wales has just been published. The inquiries were chiefly under the conduct of Mr. Horace Mann, and he has furnished a short history of the progress of popular education, and an account of the existing educational agencies, and has diligently analyzed the tables and presented the results in a convenient form. The general summary is as follows:—

SUMMARY OF ENGLAND AND WALES.

—	Schools.	Scholars.		
		Belonging to the Schools, or on the Books.		
		Total.	Sex.	
			Males.	Females.
Day Schools	44,836	2,108,592	1,139,324	969,268
viz.,				
Public Day Schools	15,411	1,413,170	795,632	617,538
Private Day Schools	29,425	695,422	343,692	351,730
Sunday Schools	23,137	2,369,039	1,174,647	1,194,392
Evening Schools for adults ..	1,545			

—	Schools.	Scholars.		
		In actual Attendance on the Day of the Census.		
		Total.	Sex.	
			Males.	Females.
Day Schools	44,836	1,754,812	952,414	802,398
viz.,				
Public Day Schools	15,411	1,119,216	638,259	480,957
Private Day Schools	29,425	635,596	314,155	321,441
Sunday Schools	23,137	1,788,358	889,058	899,300
Evening Schools for Adults ..	1,545	39,783	27,829	11,954

The above figures show the statistics of all the schools for which returns have been received at the Census-office: but the lists supplied by the enumerators mention, in addition to the above, 1,206 other day schools (107 public and 1,099 private); and 377 other Sunday schools, from which no returns were procurable. Assuming that each of these unrepresented schools contained, on an average, as many scholars as did each of the schools which made returns.

and that the proportion of the sexes and attendants was the same, the ultimate result of the Educational Census will be this:—

——	Schools.	Scholars.		
		Belonging to the Schools, or on the Books.		
		Total.	Sex.	
			Males.	Females.
Day Schools	46,042	2,144,378	1,157,685	986,693
Public Day Schools	15,518	1,422,982	801,156	621,826
Private Day Schools	30,524	721,396	356,529	364,867
Sunday Schools	23,514	2,407,642	1,193,788	1,213,854
Evening Schools for Adults..	1,545	..	..	..

——	Schools.	Scholars.		
		In actual attendance on the day of the Census.		
		Total.	Sex.	
			Males.	Females.
Day Schools	46,042	1,786,324	968,580	817,744
Public Day Schools	15,518	1,126,987	642,690	484,297
Private Day Schools	30,524	659,337	325,890	333,447
Sunday Schools	23,514	1,817,499	903,545	913,954
Evening Schools for Adults..	1,545	39,783	27,829	11,954

It has been generally considered that it would be satisfactory if one in every eight persons were found belonging to some day school. This, on the population of England and Wales, gives 2,240,951 as the number to be under school instruction in 1851. Mr. Mann examines this question carefully, and considers that there ought to have been 3,000,000 at school. The number of children between 3 and 15 was 4,908,696.

Returns as to the nature and quality of the instruction given were obtained from schools comprising six-seventh of the scholars. Sixty-one per cent. of the boys in the public schools, but only 45.4 per cent. of the boys in private schools, were being taught arithmetic; 25-6 per cent. of the boys in public schools, 31.4 of those in private schools were learning English grammar: 31 per cent. of the boys in public schools, 29.4 of the boys in private schools, were learning geography, or, stating the result by schools instead of scholars then receiving particular kinds of instruction, out of 33,993 schools in which boys were instructed, writing was taught in 90.8 per cent. of the public schools, in 55.2 per cent. of the private schools; arithmetic in 84.5 per cent. of the public schools, in 48.1 of the private; grammar in 61.7 per cent. of the public schools, in 34.8 of the private; geography in 55.3 per cent. of the public schools, in 30.5 of the private.

DAY SCHOOLS.

RELIGIOUS DENOMINATIONS.	NUMBER OF SCHOOLS AND SCHOLARS.			
	Excluding schools in which the Endowment exceeds the Subscriptions of religious bodies.		Including all Schools receiving Support to any amount from religious bodies.	
	Schools.	Scholars.	Schools.	Scholars.
Total	10,595	1,048,851	12,708	1,188,786
Denominational.				
Church of England	8,571	801,507	10,555	929,474
Church of Scotland	5	946	5	946
United Presbyterian	3	217	3	217
Presbyterian Church in England	25	2,447	28	2,723
Scotch Presbyterians *	1	345	1	345
Presbyterians *	7	1,321	13	2,030
Independents..................	431	47,406	453	50,186
Baptists	115	8,665	131	9,390
Society of Friends	23	2,247	33	3,026
Unitarians	30	3,736	39	4,306
Moravians	7	366	7	366
Wesleyan Methodists	363	39,764	381	41,144
New Connexion Do	13	1,815	14	1,851
Primitive Methodists	25	1,297	26	1,342
Bible Christians	8	367	8	367
Wesleyan Association	10	1,112	11	1,176
Calvinistic Methodists	41	2,814	44	2,929
Lady Huntingdon's	9	644	10	714
New Church	9	1,551	9	1,551
Dissenters*	43	5,392	49	5,805
Isolated Congregations........	14	1,144	14	1,144
Lutherans	1	157	2	221
French Protestants	1	15	1	15
German Mission	1	100	2	116
Roman Catholics	311	38,583	339	41,382
Jews..	10	1,234	12	2,361
Undenominational.				
British †....................	514	82,597	514	82,597
Others	4	1,062	4	1,062

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* Not otherwise defined.

† This line represents only the British Schools which are not returned as being connected with any particular denomination. Many British Schools are included in this table amongst those belonging to specific religious bodies. The total number altogether is, on the first view, 852, containing 123,015 scholars, and, upon the second view, 857, containing 123,496 scholars.

A rough attempt was made to classify according to efficiency the 29,425 private schools which sent returns; the result showed 4,956 superior schools (classical, boarding, &c.) 7,095 middling, (commercial, &c. teaching arithmetic, grammar, and geography) no less than 13,879 inferior shools (principally dame schools, teaching reading, and, generally, writing); the remaining 3,495 were not sufficiently described. In the case of 708 of the 13,879 inferior schools, the returns were signed by the master or mistress with a mark. The same circumstance is noticed with respect to 35 public schools, most of which had small endowments.

Of the 15,411 public day schools, the number of teachers was ascertained in 11,420, containing 1,143,892 scholars. There were 9,681 masters and 11,364 mistresses; 9,804 paid monitors and pupil teachers (male and female); 26,510 unpaid teachers—total 57,359.

It was found difficult to state precisely the number of day schools supported by religious bodies, schools being in many cases maintained by a combination of endowments and subscriptions. But there were found 12,708 day schools (containing 1,188,786 scholars) to which religious bodies furnished some pecuniary aid, and which were subject to their management.

Of the 23,137 Sunday schools, with 2,369,039 scholars on the books, and 10,383 paid and 291,064 unpaid teachers, there belonged to the Church of England 10,427 schools, with 935,892 scholars, 9,286 paid, and 66,386 unpaid teachers. The Wesleyans (the Original Connexion) had 4,126 schools, with 429,727 scholars; the Independents, 2,590 schools, with 343,478 scholars; the Baptists, 1,767 schools, with 186,510 scholars; the Roman Catholics, 232 schools, with 33,254 scholars. The other classes of Methodists (Calvinistic, Primitive, &c.) support a large proportion of the remainder.

There were 132 Ragged schools, containing 23,643 scholars. Only 9 of these schools were connected with particular denominations.

No account was taken of evening schools for children. Returns were obtained from 1,545 evening schools, for adults, containing 39,783 students. The amount of payment weekly varied from 1d. to 2s., there being 294 schools in which the payment was 5d. and upwards.

EDUCATION AMONG THE OJIBWA INDIANS.

The school department of the Huron Lake Mission has been strengthened by the arrival of Mr. James Chance, from the Cheltenham Training College, who has been appointed Catechist and Assistant to Dr. O'Meara. The doctor writes of this arrival as "an event for which we have to be deeply thankful; he appears to be just the person to suit the work in which he is about to engage. The more we see of this excellent young man, the more we are forced to love him, not only for his amiable qualities as an individual, and his devotedness as a servant of Christ, but for the sacrifice of family ties which he has made to join us, and for the zeal and whole-heartedness with which he has already thrown himself into the work of the Lord."

EDUCATION IN THE CITY OF NEW YORK.

From personal examination, I am able to speak with greater precision on the subject of school instruction. The educational system of New York, in its higher and lower departments, is on a singularly complete scale. Independently of a number of private academies, there are as many as 230 schools, of which twenty-two are for coloured children, in all of which education is entirely free. These free schools, which are judiciously scattered through every locality, and open to all, are supported entirely by funds granted from the revenue of the municipality—the appropriation having been 633,813 dollars, or about £125,000 sterling for the current year. Such is the considerate liberality of the city corporation in maintaining the schools, and keeping up their efficiency, that one would almost be disposed to think that this much abused body is, after all, not so bad as it is called. I fear that more is done than the people properly appreciate. The registered number of pupils in the various free schools on the 1st of January 1853, was 127,237; but it appears that the average attendance was only 44,596—a fact which throws a curious light on the method of training youth. With a profusion of schools, nothing to complain of in the routine of instruction, and nothing to pay, it is certainly strange to find that, on an average, many more than one half of all the children nominally at school, were absent; though from what cause is not explained. According to recent accounts, it would appear that the poverty and neglect of parents rendered it as necessary in New York as in London or Edinburgh, to supplement all the ordinary means of education with a class of schools for the ragged vagrants of the streets—so close is the analogy becoming between the condition of cities in the New and Old World.—*W. Chambers.*

LORD PALMERSTON ON PENMANSHIP.

The Home Secretary has lately caused the following letter to be addressed to the Secretary of the Privy Council on Education :—Sir,—" I am directed by Viscount Palmerston to request, that you will submit to the Committee of Council on Education, for their consideration, that one great fault in the system of instruction in the schools of the country lies in the want of proper teaching in the art of writing. The great bulk of the middle and lower orders write hands too small and indistinct, and do not form their letters; or they sometimes form them by alternate broad and fine strokes, which make the words difficult to read. The hand writing which was generally practised in the early part and middle of the last century, was far better than that now in common use; and Lord Palmerston would suggest that it would be very desirable that the attention of schoolmasters should be directed to this subject, and that their pupils should be taught rather to imitate broad printing than fine copper-plate engraving."

THE FORTHCOMING EDUCATIONAL EXHIBITION.

The space applied for by exhibitors far exceeds that at the disposal of the Committee, notwithstanding the ample dimensions of St. Martin's Hall. The Council has fixed the opening of this Exhibition for Tuesday, the 4th of July, when a *Conversazione* will be held, at which H. R. H. Prince Albert, the President of the Society, who has evinced great interest in the undertaking, has intimated his intention of being present.

APPARATUS FOR ELEMENTARY SCHOOLS.

The Committee of Her Majesty's Privy Council on Education having resolved to aid in the purchase of apparatus for teaching experimental science in elementary schools, sets of apparatus, as per lists in the Minutes of Council, 1852—3, adapted to this use by different makers, have been deposited for inspection in the Museum of Practical Science, in Jermyn Street.

The Committee of Council on Education will grant to elementary schools, in which pupil-teachers are apprenticed, two-thirds of the cost of this apparatus and cabinets, on the conditions specified in the Special Report, by the Rev. H. Moseley, Her Majesty's Inspector of Schools.

Methods of conducting examinations for Grants of Apparatus.—Such examinations may be conducted as follows.—Special papers for testing competency to use apparatus should be given, as part of every examination for certificates or registration. Such masters as, at the times of those examinations, have already obtained certificates, or been passed for registration, should be allowed to attend for examination in the special papers only. A separate list should be kept of all who are qualified to use apparatus. With a view to bringing the scheme into more immediate operation, I would suggest that, until December, 1854, Her Majesty's Inspectors should be at liberty to examine masters individually, at the time fixed for visiting their several schools. But this concession, which is calculated to increase the time needed for the inspection of schools, and to distract the attention of the teacher on the occasion of the inspector's visit, should not be prolonged after the end of the year.—*Special Report by the Rev. H. Moseley.*

MALTON CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The usual Meeting of this Association, was held in the National School Room, Settrington, on Friday, May 26th.

Lessons on different subjects were given to the children, and in the evening a paper was read by Mr. Cumberland, of Thornton-le-Clay, on "Grammar," which was followed by a discussion.

This association has been in existence nearly a year, and although at the last Annual Meeting of the Yorkshire Association, it was stated that "all the several Local Branches reported upon last year, with two exceptions (Wakefield and Malton) were in active operation." It is now in a flourishing condition. Several papers have been read, and a good drawing class has been formed, and is well attended.

T. Wray, Secretary.

KENT AND SUSSEX SCHOOLMASTERS AND SCHOOLMISTRESSES' ASSOCIATION.

Objects.

The objects of this Association, are (1) the promotion of cordiality of feeling amongst its members, by friendly intercourse, and (2) their professional improvement by giving lessons, reading papers, and by discussion on scholastic subjects.

Rules.

(1.) That this Association be called the Kent and Sussex Schoolmasters and Schoolmistresses' Association.

(2.) That the Association consist of Day School Teachers of both sexes; and that all candidates be proposed and seconded by two members at the ordinary meetings.

(3.) That the annual subscription be 4s. for masters and mistresses, and 2s. for Pupil Teachers; to be paid half-yearly in advance, the year to commence on the 1st of July;—the omission of this payment for three months after it is due to exclude from membership.

(4.) That the ordinary meetings of the association be held at Ashford on the *first* Saturday in the months of July, September, November, January, March, and May, in each year, beginning at 1 p.m., precisely.

(5.) That all meetings of the association be commenced with prayer.

(6.) That at each meeting a lesson previously appointed shall be given by one of the members; to be afterwards freely criticised by those present; such lesson to commence punctually at half-past 1, and not to exceed half an hour in delivery; after which a paper on an Educational subject shall be read and discussed.

(7.) That the lessons and essays be delivered by the members as their names stand in alphabetical order.

(8) That the Officers of the Association be a President, Secretary, and Treasurer, to be appointed annually.

Thomas Harris, Secretary.

THE DERBY AND DERBYSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

On Saturday, the 3rd June, the Members of this Association held their usual Quarterly Meeting, in the Curzon-street National School Room, Derby, and had the satisfaction to listen to an excellent Lecture, delivered by the Rev. Joseph Deans, Melbourne, on the Remains of Ancient Rome, in such a manner as greatly to interest the Members; illustrating his remarks with references to Maps of Ancient and Modern Rome, and pointing out thereon the most attractive features in each.

At the conclusion of the lecture an explanation of bracket quantities was given by Mr. Bland, Little Eaton, author of "Hints on Teaching Notation to Little Children," and Genealogical Charts of the Royal Families of Russia, and the Ottoman dynasty.

Mr. Bland dealt with his subject in a masterly manner, simplifying on the black-board, many difficult algebraic expressions, some of which have been proposed to Candidates for Certificates of Merit during the last few years, and otherwise giving valuable hints, which cannot fail to assist much in the study of Algebra.

At Two o'clock the Members partook together of an excellent dinner, which had been provided by Mrs. Draper, under the direction of the Committee, and the thanks of the members are due to that lady for her kind attention on that occasion.

After dinner a Discussion on English Grammar was opened by Mr. Cummings, and valuable remarks on this branch of education were brought forward in the course of the discussion, which we doubt not will prove beneficial to those masters who were present, in their teaching of English Grammar.

George Turner,
Corresponding Secretary.

CHESHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The fifth half-yearly meeting of this Association was held on Friday, May 5th, at St. James's School, Congleton; there were upwards of 40 Clergymen, Masters, and Pupil teachers present, among whom were—The Rev. O. Crew, and the Rev. J. T. Norris, H.M. Inspector for the district.

After the School had been opened with prayer and singing, the following lessons were given by different members of the Association:—

1. Scripture lesson.—Subject, "Naaman the Syrian."
2. "The Growth of Plants."
3. "Some of the Manners and Customs of the Jews, illustrative of Scripture Text."
4. "A Soap Bubble."
5. "Vegetable Food."
6. "Alphabetical process."

This was recommended as an interesting method of testing children's knowledge, by requiring them to give the name of any river, mountain, battle, celebrated person, &c., beginning with A B C, &c.

After dinner, an animated discussion was commenced on the merits of the morning's lessons.

The following subjects were then discussed:—

1. In imparting instruction to a class whose ages range from nine to thirteen, which method has the greater advantages, the *didactic* or *catechetical?*

2. Is the teaching of Latin and Greek roots in National Schools, a practice to be recommended or discouraged? Should the study of these roots form part of the work of a Pupil teacher, who has no knowledge at all of either language?

Only two of the Masters present taught these roots systematically in their schools, and eight to their pupil teachers. It was observed by H.M. Inspector, that the practice of the Government, in giving questions on these roots, was falling into disuse. Two methods of teaching these roots were noticed. 1. The *Dogmatic*. 2. The Inductive. By the first, a number of Latin and Greek roots are put before the children, with the family of words derived from each. By the second, all words having a common element were arranged together, and then the root of that common element was given and explained. Mr. Norris preferred the inductive method, but recommended that when the words having a common element were grouped together, the common element should be explained, but that nothing should be said about its being of Latin or Greek origin.

3. "Is the practice adopted at the Chester Model School, of making children pay, according to the time they have been at school, one which should be generally followed?" In the Chester School, those who have been longest at School are entirely free, whilst those who have been recently admitted pay the highest fee. Though the plan had been very successful at Chester, it was thought by the clergy of the manufacturing districts, to be impracticable in their localities, particularly where there were many "half-timers."

4. The desirability of establishing a library in connection with the Association was next discussed. Mr. Norris very kindly offered to present to the Association the amount requisite to meet the Government grant, in order to obtain a copy of every work on the Committee of Council's schedules. This library will form a valuable auxiliary to the Association.

After passing a vote of thanks to the President of the day, H.M. Inspector, and the Secretary, the meeting broke up.

We are happy to add that the Cheshire Association is working well, and cannot fail to be productive of much good to the schools within the sphere of its operations.

NOTICES OF BOOKS.

Manual of Method for the Use of Teachers in Elementary Schools, by W. F. Richards.—National Society's Depository.—We confess to a disappointment in this manual, though the fault is wholly in ourselves. Knowing Mr. Richards to be the Head Master of the National Society's Central School, at Westminster, we expected to find this manual expository of the plans pursued there. We find it, however, of a general character: "An attempt to explain shortly some of the most important points connected with the methods of teaching and organization in Elementary Schools;—and designed principally for the use of those masters and mistresses whose opportunities of improvement have been scanty."

The writer, at the outset, candidly admits that the term "philosophy of teaching" does not convey to his mind any very definite idea; this, no doubt, much simplified his course, but it is questionable whether it improved the book. We cannot see how a teacher can be an intelligent one, except so far as his practice is based upon an intelligent perception of mental phenomena. When an individual learns merely a "system" of instruction, and in his school aims simply to follow a set model, usage may compel us to call him a schoolmaster, but not a Teacher.

We do not care so much for the term "Philosophy," though we think it quite as worthily associated with teaching, as with any entity we know of, but for the thing signified we are jealous in the extreme. It lies at the very foundation of a Teacher's professional skill, and we think that *the* great defect, in the present training of teachers, lies in the want of a distinct and vigorous course of instruction on mental and moral science.

Mr. Richards has fairly worked out his own plan,—to make the book throughout of a *practical* character; venturing, however, in one or two places, rather too near to the "philosophy of teaching." Take the following passage:—"The conviction is daily gaining ground, that it is the duty of the teacher, not so much to supply his pupils with a certain amount of information on subjects of human learning, as to *educate* them in a higher sense, viz: to develope their mental powers. and excite in them a desire for future intellectual culture." Can this *education* be accomplished, unless by men who know the principles on which it is based?

We are sorry to have differed with the writer of the Manual, as, after all, it has a value in the unfortunate fact, that there is still a large class engaged in Elementary Schools, to which such a book will be acceptable. Its usefulness is seen in the character of its several chapters: School Organization, School Discipline, Qualifications and Duties of Teachers, Teaching, Religious Instruction, Reading, Spelling, Grammar and Etymology, Writing, Arithmetic, Geography, &c., &c., together with an appendix, containing School Plans, Routines of Instruction, and Time Tables.

Lessons on the Phenomena of Industrial Life, and the Conditions of Industrial

Success. Edited by the Rev. R. Dawes.—Groombridge and Sons.—We may safely take the present ferment, as to what shall be taught in the Elementary Schools of the country, as an indication of dissatisfaction with things as they are. The time does not seem to have arrived, when the chief movers in popular education can agree on the exact place which *school influences* really occupy in the education of an individual. Some seem to think that every thing can be done by the agency of elementary schools, whilst others maintain that subjects of instruction, the most elementary, are not mastered,—that even the power to read is so imperfectly acquired, that it is soon lost. Writing, too, is in the same category. Horace Mann, in his Educational Census, says, in reference to the list of "marriage marks,"—"The art of writing is with great facility forgotten by the poor." No doubt of it, though not so much for the reason which he assigns, as from the fact of its never having been properly mastered.

Those who take the former view of the power of Elementary Schools, are for pressing into them an increase of subjects. Thus one party declares it necessary that the Course of Drawing, patronised by the Department of Art, shall be taught in all schools. Another that Scientific Instruction shall be afforded, and provides apparatus at a reduced price for such schools; and a third that the "Science of Common Things," is to be the *sine qua non.* This list of what is conceived, by different sections of Educationists, to be essential, might easily be enlarged by Industrial Labour, and other projects.

The Elementary Teacher, and those whose close connexion with the elementary instruction of the poor, makes them practically acquainted with what these schools can really accomplish, are perplexed to know how all this can be done in the present circumstances of primary schools. If now, so many of the children fail to master thoroughly the merest elements, what is to become of Reading, and kindred subjects, when several others are introduced? Some end must come to this state of things, or the elementary instruction of this country will fall into profound difficulties.

Among the *few* subjects which are *essential* to Primary Schools, we think "Common Things" to be one. Such instruction has a special adaptation to the working classes, and will, when taught, not only remove positive ignorance, but correct many of the wild notions current among that section of society.

These "Lessons on Industrial Life," we strongly recommend to Teachers, with a view to their own profit, and that of their schools. And we may add, such a book as this is well fitted for distribution among the working classes; its price is small, and it would be an act of wisdom on the part of employers, to put a copy into the hands of each of their workmen.

Elements of Geometry and Mensuration. Part I. Geometry as a Science. By T. Lund.—Longman and Co.—Intended not to supersede, but simply to be an introduction to the Study of Euclid's Elements. The Author says:—"as it cannot be denied, that Euclid presents Geometry in a diffuse, and somewhat repulsive form, whereby a large proportion of those who ought to be acquainted with the subject are deterred from venturing upon it at all, I have thought that good service might be rendered to the cause of popular education, by framing a work, which shall neither terrify by its size, nor repel as Euclid does, by a studied avoidance of all practical illustration."

Mr. Lund, in carrying out this purpose, has produced one of the best *Introductions* to the Science of Geometry, that we remember to have seen. Schoolmasters will find it, in every way, a work worthy their attention.

Correspondence.

Sir,—Will you be kind enough to permit me, through the medium of your valuable Paper, to throw out a suggestion to my fellow Certificated Teachers, which I think it will be our prudence to adopt? I find by referring to the Rev. Mr. Moseley's report, (Min. 1852-3, page 149), that there are 1387 Certificated Teachers, and of course, this number is annually increasing; now I propose that all Certificated Teachers, at once form themselves into a Benefit Society. The State has done a great deal for the elementary Teacher, and we ought now to assist each other, and how can we do this better, than by prudently providing for that, which we are quite sure will take place, and we know not how soon? I would then urge upon all Certificated Teachers, the propriety of entering into some such scheme, as the one I now lay before them,—men combine together for good or bad purposes, and I am of opinion, that the greatest good would result from the proposed Certificated Teachers' Benefit Society. I would in the first place propose, that every Certificated Teacher, on the formation of the Society, contribute the sum of 13d. to a general fund; this wou'd amount to upwards of £75.

Secondly, that the representatives of any Certificated Teacher, who dies a member of this Society, be entitled to the sum of £69 7s. the 1387 pence being reserved for the working expenses, and to be accounted for by the Treasurer,—or in other words, to go to the general Fund.

Thirdly, that should a period of three months, at any time pass over, without any claim having been made upon the funds of the Society; that another contribution of 13d. be made by each member, of the Society; this would amount in time, (should not many deaths occur), to a considerable sum.

Fourthly, that Agents be appointed in every County Town in England and Wales, to receive and remit contributions to the general fund; and that a sufficient number of Agents be appointed for Scotland.

Fifthly, that Her Majesty's Inspectors of Schools, be respectfully invited to examine the rules of the Society, and that it be based upon such principles, as to carry with it the confidence of all reasonable men. The proposed scheme is not intended to supersede any existing provision, which any of us may have already made, but rather to assist it. And I think we all, as prudent men, ought to be alive to the necessity of doing all we can whilst in health, "to provide for our own," and this I think we can do, at a very small cost, by forming a "Certificated Teachers' Benefit Society."

In conclusion, I call upon all Certificated Teachers, to come forward and join in forming a Benefit Society, the objects of which will be easily seen, from what I have stated above, and I shall be thankful for any suggestions of my fellow Teachers, or if they please, to leave the formation of the Society in any of their hands.

OMICRON.

ANALYSIS OF A SENTENCE.

GENERAL ANALYSIS.

In answer to G. W.'s request contained in the May Number of your valuable Paper, I submit the following as an analysis of the passage, "If it be said that we should endeavour not so much to remove ignorance, as to make the ignorant religious, Religion herself, through her sacred oracles, answers for me, that all effective faith presupposes knowledge and individual conviction."

A. If it be said	...Principal sentence to B.
B. That we should endeavour, not so much to remove ignorance,	Substantive sentence, object to A.
C. As to make the ignorant religious,	Substantive sentence to A, co-ordinate to B, contracted in predicate.
D. Religion herself, through her sacred oracles, answers me,	Principal sentence to E and F, co-ordinate to A.
E. That all effective faith presupposes knowledge,	Substantive sentence, object to D.
F. And individual conviction,	Substantive sentence, object to D, contracted in subject and predicate.

PARTICULAR ANALYSIS.

Subject.	*Predicate.*	*Completion of Predicate.*	*Exten. of Pred.*
If it	be said	......	..
that we	should endeavour	to remove ignorance,	not so much
as we	should endeavour	to make the ignorant religious,	..
Religion herself, through her sacred oracles,	answers	......	for me,
that all effective faith	presupposes	knowledge.	
that all effective faith	presupposes	individual conviction.	

R. BANCROFT.

[Our readers will be aware that at present some little diversity of opinion exists as to the best mode of analysis. To those seeking for information on this subject we recommend "Analysis of Sentences," by J. D. Morell, Esq., H.M. Inspector of Schools, and the "Young Composer," by Dr. J. Cornwell.]

Examination Papers.

GENERAL EXAMINATION OF CANDIDATES FOR REGISTRATION.

EASTER 1854.

INSTRUCTIONS.

All your answers are to be written on this paper; answers written on any other paper will not be looked over.

You are not permitted to answer more than one question in each section. Number your answers to correspond with the questions, and *begin to write them* (as far as possible) opposite to the sections to which they severally refer.

Before beginning your answers, you are to fill up the following Table:

Your Christian Name and Surname *in full*, and the *current* year of your Age.	The Name of your School, and of the nearest Post Town.	The Name of the School at which you are now being examined.

RELIGIOUS KNOWLEDGE.

SECT. I.—1. What were the chief points of difference between the character of Esau and that of Jacob?

2. What lesson may we learn from the history of Balaam?

3. Show by quotations from the New Testament how a Christian ought to use the Old Testament.

SECT. II.—1. State shortly the substance of the first chapter of each of the four Gospels.

2. "Suffered under Pontius Pilate."—Show clearly by what process, and on what charge, our Lord came to be condemned to death.

3. Give a sketch of some one of St. Paul's Epistles.

Sect. III.—1. Show from the Church Catechism how Baptism may properly be called a *Covenant.*

2. "Because *they* promise *them both* by *their* sureties; which promise, when they come to age, themselves are bound to perform."—Paraphrase this, introducing the nouns to which the words in italics refer.

3. Show from our Lord's teaching that Christians may rightly understand the Ten Commandments in the extended sense given to them in the Catechism.

Sect IV.—1. Give a short account of each of the Hymns or Psalms appointed to be said or sung after the first and second Lessons at Morning Prayer.

2. To what Christian duties does the Prayer Book chiefly direct our attention at each of the following holy seasons:—Advent, Lent, Easter, Holy Thursday, Whitsuntide, Trinity Sunday?

3. What were the principal changes effected in the Divine Service of the English Church at the Reformation?

Arithmetic.

Sect. I.—1. Explain, as you would to a child, the first principles of notation, and exemplify them in writing the number *seven thousand and five.*

2. Describe minutely the process by which you would teach a class of children to subtract 793 from 1000.

3. State exactly the several steps by which you would lead a child to answer correctly such questions as the following: *(a)* How many days are there in 37 weeks? *(b)* How many weeks are there in 259 days?

Sect. II.—1. If a letter-carrier walk 19 miles every day except Sundays, how far does he walk in a year?

2. If a ship's company consist of 127 persons, what sum will suffice to pay each of them £6 7s. 10$\frac{1}{2}$d. at the end of the voyage?

3. If £1200 be divided equally among 359 persons, what will be the exact amount received by each?

Sect. III.—1. Show how to make out a grocer's bill to a customer who has bought 13lbs. of sugar at 4$\frac{3}{8}$d., 5$\frac{1}{2}$ lbs. of tea at 3s. 8d., 15 lbs. of rice at 2$\frac{3}{4}$d., a stone of salt at 1s. 6d. per cwt., and 3 pints of treacle at 2s. 4d. per gallon.

2. Show how to represent 253 guineas in pounds, florins, and tenths of a florin.

3. If the circumference of a circle were exactly 3 times its diameter, how many turns would be made in a mile by a wheel which is 4 feet 6 inches high.

Sect. IV.—1. If a railway carriage run 200 miles in 9 hours, how far will it go in a week at the same rate, supposing it to travel 15 hours a day?

2. If a merchant give £105 for a pipe of wine, at how much per gallon must he sell it in order to gain 20 per cent?

3. If 5 needlewomen can do a piece of work in 11 days of 9 hours each, how long will it take 3 women to finish 2 such pieces of work, supposing them to work 10$\frac{1}{2}$ hours each day?

Sect. V.—1. State minutely how you would endeavour to give children a correct idea of a *fraction;* and deduce the rule for the multiplication of one fraction by another.

2. If in an examination of 750 teachers, ·22 of the whole do well, ·34 barely pass, and the rest fail; how many do well, barely pass, and fail respectively?

3. If a gallon contain 277·274 cubic inches, and a cubic foot of water weigh 1000 ounces; what quantity and weight of water will fill a rectangular cistern, 5 feet long, $3\frac{1}{2}$ feet wide, and 2 feet 9 inches deep?

SECT. VI.—1. State and prove the rule in mental arithmetic for finding the interest of any number of pounds sterling for any number of years and months at 5 per cent. per annum. *Ex.* Find the interest of £347 for three years and five months.

2. When the 3 per cents are at $91\frac{3}{4}$, what amount of stock can I buy for £1835, and what rate of interest shall I get for my capital?

3. If a partnership be formed between A with a capital of £300, and B with a capital of £500, and at the end of six months they take in C with a capital of £800; how should a profit of £700 be divided at the end of the year.

GEOGRAPHY AND HISTORY.

SECT. I.—1. Name and describe the position of the chief British isles, mentioning the seas in which they are situated, and the channels by which they are separated.

2. Trace carefully the course of *two* of these rivers:—the Thames, the Severn, the Yorkshire Ouse, the Tay, the Clyde, the Shannon, and the Barrow.

3. Name the chief mountain-chains in Great Britain, the direction in which they run, and the effects which they produce in the physical geography of the country.

SECT. II.—1. Mention the boundaries, mountains, rivers, and chief towns of Russia.

2. Describe the course of a ship from Portsmouth to the Black Sea, and from the Downs to the Gulf of Finland.

3. Name the chief exports from Russia to Great Britain, the ports from which they are sent, and the parts of the country in which they are produced.

SECT. III.—1. Give a short account of Hindostan or Australia.

2. Mention the boundaries of the Pacific Ocean, and the chief seas belonging to it.

3. Write in order the different articles of commerce which we get from India, Ceylon, Jamaica, Arabia, China, Canada, the United States, Australia, and the Moluccas.

(To be continued.)

PAPERS FOR THE SCHOOLMASTER.

No. 42. AUGUST 1, 1854.

The Educational Exhibition.

A considerable portion of the Teachers of elementary schools in towns has already made acquaintance with the Educational Exhibition; this is as it ought to be. There is, however, a large moiety engaged in Agricultural Districts, whose vacation is about to commence. Respecting this class we feel particularly anxious. Isolated as many of them are, it is of great importance that the present opportunity of improvement should be seized, and that they should put themselves in the way of getting alongside, so to speak, of the movement. Teachers in towns are, most of them, *in* the way, both of seeing and otherwise knowing, what is being done, and the very fact of their being in constant intercourse with their brethren, keeps them pretty nearly abreast of each other, and up to the present rather rapid changes in elementary schools, and the methods proper for elementary instruction. Teachers in Rural Districts have these advantages to a greater extent than formerly; and yet the general impression is, that those engaged in country schools do in some way fall behind. Supposing this statement to be true, there is the greater reason why persons of this class should embrace every opportunity to bring themselves in contact with quickening influences. One such opportunity is now afforded. An unexampled collection of models, furniture, books, and other species of apparatus for schools is now centred in one Exhibition; a careful examination of which cannot fail to benefit the class we speak of.

The Managers and Committees of Schools will act wisely by forwarding these views. In some schools the Managers have very generously removed any pecuniary hinderance, which might have prevented their teachers visiting the Exhibition; we shall be glad to learn that this example is extensively imitated. We feel assured that teachers visiting the Metropolis for this purpose, and at the same time taking occasion to observe the methods and management of two or three good London schools, will return to their labours with an enlarged knowledge of their vocation, and a quickened zeal to imitate what is good.

We add the list of Lectures and Conversational Meetings at St. Martin's Hall, in connection with the Educational Exhibition, for the month of August.

1st, Tues.	at 5.	Rev. C. H. Bromby, On the Aims and Instruments of Real Education, L.
,, ,,	at 8.	Professor Hunt, F.R.S., On "Classes for Scientific Observation in Mechanics' Institutes," C.
2nd, Wed.	at 3.	Professor Hunt, F.R.S., On "Familiar Methods of Instruction in Science," C.
3rd, Thurs.	at 3.	Dr. Scott, on Teaching the Deaf and Dumb, L.
4th, Frid.	at 5.	Rev. E. Sidney, On Teaching the Idiot, L.
,, ,,	at 8.	Professor Tennant, F.G.S., Mineralogy and its application to Geology and the Arts, L.
5th, Sat.	at 5.	Rev. M. Mitchell.
,, ,,	at 8.	(Vacant.)
7th, Mon.	at 5.	The Dean of Hereford, On "Common Things" and School Fees, C.
,, ,,	at 8.	Hon. and Rev. S. Best, On Village Reading Rooms and Libraries, C.
8th, Tues.	at 5.	(Vacant.)
,, ,,	at 8.	Rev. W. Mitchell, On Teaching Crystallography, L.
9th Wed.	at 3.	Mr. Chadwick, C.B., Points of the Sanatory Construction and Management of Schools, L.
10th, Thur.	at 3.	Mr. Knighton, on the Training System, L.
11th, Frid.	at 5.	Mr. W. Ellis (Champion Hill, Camberwell) On Economic Science, C.
,, ,,	at 8.	(Vacant.)
12th, Sat.	at 5.	(Vacant.)
,, ,,	at 8.	Explanation of Articles in Exhibition, C.
14th, Mon.	at 5.	Dr. Guy, On the Use of Tabular Forms in Learning and Teaching, L
,, ,,	at 8.	Rev. Sydney Turner, Reformatory Schools, C.
15th, Tues.	at 5.	(Vacant.)
,, ,,	at 8.	Mr. Arthur Hill, On Punishments and Rewards, C.
16th, Wed.	at 3.	(Vacant.)
17th, Thur.	at 3.	(Vacant.)
18th, Frid.	at 5.	Rev. A. B. Power, On School Organization, with special reference to the Use of Parallel Desks, C.
,, ,,	at 8.	Dr. Guy, On the Use of Common-Place Books.
19th, Satur.	at 5.	(Vacant.)
,, ,,	at 8.	(Vacant.)
21st, Mon.	at 5.	Explanation of Articles in the Exhibition, C.
,, ,,	at 8.	Professor Hunt, F.R.S., Mechanics' Institutes, L.
22nd, Tues.	at 5.	(Vacant.)
,, ,,	at 8.	Rev. G. E. L. Cotton
23rd, Wed.	at 3.	(Vacant.)
4th, Thurs.	at 3.	Gymnastics, C.
25th, Frid.	at 3.	(Vacant.)
26th, Satur.	at 5.	(Vacant.)
,, ,,	at 8.	Concluding Address.

The Rev. Dr. Bell and the Madras System.

We have often thought that the educational labours of Dr. Bell have been too much ignored. Doubtless the state of Elementary Instruction has greatly advanced since his day; but this advance owes much to the enthusiastic energy of the Rev. Doctor and that of his peer, Joseph Lancaster. We admit that some of the notions held by the founder of the Madras System were very strongly expressed, and that results were predicated of his system not likely to be realized; but this is true of all enthusiasts, and we must be satisfied to accept a little of what is erratic, when coupled with much that is valuable. As we have reason to believe that Dr. Bell's writings are little known to the majority of the present race of Teachers, we may be doing some slight service, at least to the history of elementary instruction in this country, in introducing some short extracts expository of the Doctor's life, and System of Instruction.

His Life.—We have nowhere met with so compact a summary as that given by Horace Mann, in his Official Report on the Census of 1851; we shall therefore, without further apology, introduce it. "In 1792, six years before the monitors of Lancaster began their labours, the experiment of juvenile instructors was successfully commenced in India, where Dr Bell, the Superintendent of the Military Orphan School, Madras, unable to induce the usher there to teach the younger children to write the alphabet in sand, was led to supersede him by a boy of eight years old, whose services proved so efficient, that the Doctor, generalizing from this instance, and considering the plan of almost universal application, ardently developed his idea; and on his return to England in 1796, urged warmly the adoption of his system, as the most effectual means of rapidly extending popular instruction.

Andrew Bell was the opposite of Joseph Lancaster, in all except a common enthusiasm for instruction on the "mutual" or "monitorial" system. A Scotchman, (the son of a barber of St. Andrew's), his career was just as much distinguished by invariable prudence, as was Lancaster's by constant though benevolent improvidence. On leaving college in 1774, at the age of twenty-one, Bell went to America, and spent his next five years as a tutor in Virginia, whence, in 1781, he returned to England, having suffered shipwreck on his passage. He now took orders in the English Church, and became a minister of the Episcopal Chapel at Leith. Applying for a Doctor's degree in Divinity, he received instead, from the University of St. Andrew's, one in Medicine. In 1787 he sailed for India, where he was appointed chaplain to five or six regiments. On the foundation of the Military Orphan Asylum, he became its honorary Superintendent, and it was in this capacity that he made his first experiment in "mutual instruction." The result of this experiment he published, after his return to England in 1797, and made strenuous efforts to procure the general adoption of his scheme. In 1801 he became rector of Swanage, Dorsetshire; in 1808 the master of Sherborne Hospital; in 1818 a prebendary of Hereford Cathedral, and subsequently one of Westminster. He died in 1832, bequeathing his large fortune of £120,000, principally to the Educational Institutions of his native country.

It is, however, in connection with the NATIONAL SOCIETY that Dr. Bell is chiefly known. The Lancastrian Schools have always been established on an unsectarian basis—no peculiar religious tenets being inculcated; "the Bible without note or comment" being the only religious school-book. Early in the history of these schools, this plan appeared to many Churchmen unsatisfactory,—the distinctive doctrines of the Church of England being thus unrepresented; and a scheme was formed to organize, according to the new method, exclusively *Church* schools. This led to the establishment, in 1811, of the "National Society for promoting the Education of the Poor in the principles of the Established Church."

Organization.—In the original organization, and even now in many schools, the entire school was divided into large classes, containing from twenty-five to forty children in each, and officered by a Teacher and an Assistant, both of them selected from the school. The business of the former was to teach and hear lessons; of the latter, principally the preservation of order. The classes were, probably from the military ideas of the doctor, arranged in hollow squares, one side being occupied by the two officers. Position was marked out by the forms; thus, as most of the instruction was done in class, the children could either sit or stand, without changing places; the only change of place was that made to occupy the desks for writing. These desks were single, and placed round the walls of the room. Of the *classification* the Doctor thus speaks:—"The first and grand law is, that every scholar finds for himself his level, and unceasingly rises and falls in his place in the form, and in the ranks of the school, according to his relative performance.

"For the equalization of the classes in point of proficiency, the scholar who has held a high place in his class for some time is promoted to the class above, and is placed at the bottom; but if, on trial, he proves unequal to his new class-fellows, he must revert to his former class;

and the boy who fails for some time in saying his daily lessons is degraded to the class below, and is placed at the head; but if he proves superior to his new associates, he then resumes his former class on a new trial. The best method, however, of maintaining equalized (in progress) classes, is by continually feeding the higher from the lower, whereby the unpleasant necessity of degrading the scholars inferior in genius or progress may, in a great measure, if not entirely, be dispensed with.

"This law of Classification prevents what is found in some schools—one or two boys may be masters of the lesson, others partially acquainted with it, and others wholly ignorant of it. Nay, a majority of the scholars may pass through the forms of the school, and yet acquire little or nothing of what is there taught. This is the case when the lessons prescribed are beyond their reach, and they are unable to overtake their daily tasks; or when they have the option to prefer idleness or play, and the risk of being flogged, to the exercise of mind, and the acquisition of letters."

Duties of the Master.—"It is the master's unceasing duty to direct, guide, and control the uniform and impartial execution of these laws, in all the departments of the school, so as to render them effectual to the purposes for which they are framed. These are to maintain quiet and order, to give full scope to the love of imitation, and spirit of emulation, so as to promote diligence and delight—advance the general progress—imbue the infant mind with the first principles of morality and religion—and implant in the tender heart, habits of method, order, and piety.

"The master who performs his duty faithfully, gains the hearts of his scholars, and can direct their energies as he sees fit. From his pupils his influence extends to their parents, who are completely won, by their being made sensible of the happiness and improvement of their children. The careless and unequal master has no weight either with his pupils or with their parents, who are alike aware of his insufficiency or misgovernment. He is sure to betray himself by his constant complaining of the badness of his teachers, and of his scholars, and of the troublesomeness of their parents, and cannot be made sensible that the fault lies solely with himself, and that, were his school in able hands, the reverse of all this would be the case; and that the children, who were pointed out as the most refractory and troublesome, will often, under better management, become the most orderly and exemplary.

"It would be wrong to conclude without warning preceptors of a rock on which they are liable to split. It is not unusual for masters, after having exhibited in every department of their school no bad specimen of the Madras System of Education, when they observe that visitors are in general satisfied with the inspection or examination of the upper forms, to content themselves also with the exhibition of the higher classes, to the neglect of the lower classes, where the task of teaching is less pleasant, and requires their minute inspection and superintendence. Hence the teachers of the lower classes become dissatisfied and supine, and fall off, in proportion to the inattention which they experience. Their classes, in rising to the superior forms, prove greatly inferior to their predecessors in habits and attainments: and the whole school undergoes a revolution, and forfeits its character, and in no small degree its usefulness."

(To be continued).

Notes of Lessons.

NOTES FOR A BIBLE LESSON.

Christ anointed by a woman who was a sinner.—Luke vii. 36—50.

After the passage has been read simultaneously, seat by seat, or individually, the trainer should endeavour to interest his pupils by calling up to their minds the scene and the persons who figure in it. Let them see the table surrounded by the guests *reclining* on the couches, with feet *behind* and head towards their neighbours' bosom. And now when all are busy, some dipping their hands into the dish and eating, and others engaged in conversation, behold one not invited standing behind Jesus, with downcast head, and eyes streaming with tears which fell upon the Saviour's feet. She stoops and dries them with her glossy ringlets, she kisses them, and opening an alabaster box pours on them the precious ointment which fills the house with its fragrance.

Now mark the countenance of the Pharisee, as he casts a sidelong glance of *contempt* (chap. xviii. 10) at the woman, and then looks with *surprise* at the Redeemer. "How can this man," thinks he, "be a *prophet*, when he does not *know*, as is plain by his *allowing her to come near him*, that this woman has been *remarkable for her wickedness*." Show that prophets were distinguished by their knowledge not only of things *future*, but of *past* (John, iv. 19, 29) and *present* secrets (2 Kings, vi. 12). Refer also to Isaiah, lxv. 5, which says, "Stand by thyself, come not near to me; for I am holier than thou."

Examine shortly on the statements and meanings of words contained in parable of the two debtors. Point out the power of creditors among the Jews to cast into prison and sell wife and children into slavery, and notice that by the judgment which the Pharisee is called on to give he might well be convinced that he was in the presence of the Searcher of hearts. Run over the points of *contrast* in the conduct of Simon and the woman, remarking the employment of her *hair*—that which people delight so much to adorn—in wiping the dusty feet of her Saviour, and the *costliness* of the ointment.

"Wherefore, her sins, which are many, are forgiven; for she loved much." Here let it be asked, "Why was this woman forgiven," and the pupils, unless they have had their attention carefully directed to the subject previously, will we have no doubt answer, "BECAUSE she loved much." Without expressing his opinion of this answer the trainer may proceed to inquire, What are sinners compared to in the parable of the lesson? Describe the feelings of a debtor. If he sees the creditor at a distance he runs another way to avoid him. A quick step heard behind makes him start—he thinks it may be the officer of justice coming to seize him. Wherever he goes he is haunted with thoughts of prison and slavery—he is *tormented with fear.* To his creditor he can have NO LOVE—he could even *feel pleasure in* HIS DEATH.

But see the trembling debtor summoned into the presence of him whom he dreads; and who shall describe his feelings when instead of the stern demand of payment he hears "*I frankly forgive thee!*" The one who owed *fifty* pence does not fail to express his hearty thanks, but he who owed *five hundred* has fallen at the feet of his *merciful* creditor, and with a heart overflowing with gratitude can scarcely utter amidst sobs and tears, "Oh! how can I ever sufficiently love!"

So with the sinner. When he remembers his sins, and the holiness and justice of God, when he thinks of death, and judgment, and hell, the words "pay me what thou owest" ring in his ears, and secretly wishing there WERE no God he sometimes seeks peace and shows his HATRED by saying there is no God.

When is it, then, that the sinner *loves* God? *Only* AFTER *believing and being forgiven.* He is not forgiven *because he loved God.* No. We love Him, *because He* FIRST *loved us,* 1 John, iv. 19. Wherefore, I say unto thee, her sins which are many are forgiven; for, or *therefore,* she loved much.

If WE do not show our love to Christ by keeping his commandments, then are we not pardoned. For us, like the unforgiven debtor, there is only a fearful looking for of judgment and fiery indignation.

O blessed is the man to whom
Is freely pardoned
All the transgressions he has done;
Whose sin is covered.—Ps. xxxii.

But remember also the last two lines of the next verse.

Blessed is the man to whom the Lord
Imputeth not his sin,
And in whose spirit there is no guile,
Nor fraud is found therein.

—*Glasgow Trainer's Record.*

NOTES OF A LESSON FOR INFANTS—AGE 5 TO 7.

THE HARE.

Hands up those that have seen a rabbit. Well, we are now going to have a lesson on on animal somewhat like a rabbit, but different from it in colour and size. What is it, think you? A hare. Well, which of you have seen a hare? Where have you seen it? In the fields, and if you have gone near it, what has it done? Started away. And why? Because it was afraid. Were you going to hurt it? No. Then you would say it was *easily frightened.* Now, what do you call that which is easily frightened? Timid. Well, then, you would say that the hare—*is timid, or easily frightened.*

1. Why is it so easily frightened? I was once in a school; and as I went towards a little boy, he started back, afraid that I was going *to strike him*—that showed that he must have been struck before. Now, when a hare starts away from you, it may be because it has been chased before.

2. What would you say of a person that tried to kill another? That he was *his enemy*. Now, do you know any one that tries to kill the hare? Men, dogs, foxes, hawks. Then you would say that these are the hare's *enemies* – and you would say that it is timid, and has a *number of enemies*.

3. Suppose that a cat were sitting on the floor here, and a dog were to come in; what would it perhaps do? Fly at the cat, and what would the cat do? Scratch it; and what would you call that? Defending itself. With what would the dog defend itself? Its teeth. Now, how can the hare defend itself? It cannot, Sir. Then what can it do to save itself from its enemies? Run swiftly? Yes: it has not claws like the cat, nor teeth like the dog; but it can *run very quickly*.

4. Tell of a hare chased by a dog, coming to the bank of a river. How can it cross? By swimming. Well, it swam across, and saved its life; then, to help it from its enemies it can not only run, but also swim.

5. Suppose you were in a field on a dark night, and you knew some one was coming to hurt you, but you did not know which way they would come. What would you do? Listen.—(Here draw out that when a sound was heard, the head would be turned to find out the *direction*.) Now, the hare hears a noise, and then it will run away; but what will it do first? Train out that it will find out the direction by listening. Now we would turn our heads; but the poor hare does not turn its head, but its ears, which are very long. Try to turn your ears. You cannot. You have to turn your *head*; but the hare has only to turn its *ears*.

6. But are all the enemies of the hare on the ground? No. One of its enemies is the hawk. This flies, and when flying makes no noise; then to escape from it the hare must see it. Now describe the position of the *eye of the hare*, towards the top of the head.

7. But sometimes the hare will want to sleep; and then neither its hearing nor sight will help it.

It will need at such times a *place of safety*. The rabbit burrows; but the hare does not; its bed is among the grass. Now tell me, what is the colour of the hare? Brown. And what is the colour of the grass? Green. Then a brown hare in green grass would be *easily seen*. Did you ever see grass of a different colour? You know when the grass is faded it is brown. Now tell me, which would be the safest place for the hare, a bed amongst green grass, or faded? Faded. Why? Because it is brown, and it would not be so easily distinguished.

P.P.

Educational Intelligence.

EXTRACT OF A LETTER FROM THE REV. HENRY MOSELEY, HER MAJESTY'S INSPECTOR, TO THE LORD PRESIDENT OF THE COUNCIL.

Course of Examination for Male Students in Training Schools.

My Lord,—In compliance with your Lordship's instruction, I have drawn out a programme of subjects for the actual examination of Students in Training Schools, of which I enclose a copy.

* * * * * *

As the best practical expedient under these circumstances, and to counteract, as far as may be possible, that tendency to diffusion which there is so much cause to regret, I have provided, in the programme which I now submit to your lordship, that the students of Training Schools shall be examined in higher mathematics, or in classics, at their option; but that no student shall in the same year be examined in both subjects. Viewed with reference to elementary education, the study of Latin is a development of the master's power to instruct his pupils in the use of language; and the study of higher mathematics is a similar development on the side of arithmetic. But in neither case is such a study *sine qua non.* The denial of an examination in the same year in both of these subjects to any student is necessary, because, practically, whatever subjects may be included in their Lordships' examinations, to which weight and importance is supposed to be attached in conferring certificates, and in awarding grants, these subjects will be found, I apprehend, always to have been more or less studied.

The examination in English History in the second year includes some elements of the history of the constitution and laws of England, and of the manners and customs of the people.

As a suitable work for the study of the former, I may perhaps, venture to suggest two little volumes entitled respectively, "Select Extracts from Blackstone's Commentaries," compiled by Serjeant Warren; and "An Abridgment of Blackstone's Commentaries," by the late Sir John Eardley Wilmot, Bart. (re-edited by his son). The Student, besides studying the progress of the laws and constitution of England, may gather from these books so much information, at least, as to what the laws and the constitution are, as is perhaps necessary to his rightly understanding how they have become what they are.

The style of Blackstone is so remarkable for purity, for simplicity, and for strength, that no better book could probably be selected as a prose reading lesson-book in the first year's course, and as marking the style which the students might be encouraged in their exercises on language to study, with a view to the formation of their own.

The books to succeed this in the third year are obviously the "Constitutional History" of Mr. Hallam. The history of Social Progress, Manners, and Customs, may be studied with advantage in the second year, from the articles devoted to those subjects in the "Pictorial History of England."

I am, my Lord,
Your faithful Servant,
HENRY MOSELEY.

Inclosure referred to in preceding Letter.

Subjects proposed for the Annual Examinations of Students in Training Schools under inspection.

FIRST YEAR.

Holy Scriptures.

1. The History, Chronology, and Geography of the Bible.
2. More particularly the text of one of the Gospels.

*The Catechism and Liturgy.**

1. The Text.
2. Scriptural Authorities.

Church History.

The Outlines of Church History, to the Council of Chalcedon.

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* The examination in the Liturgy is to be limited to the Morning and Evening Services, and the Litany.

Reading.

To read with a distinct utterance, with due attention to the punctuation, and with a just expression, a passage from some standard English prose author.

*Penmanship.**

(To write a specimen of the penmanship used in setting copies).

1. A line of large text hand.
2. A passage in small hand.

Arithmetic.

1. To prove the usual rules from first principles.
2. To compute with precision and accuracy.
3. To make (with a knowledge of the principles) simple calculations in mensuration.†

Mechanics.

1. To make (with a knowledge of the principles) simple calculations on the work of mechanical agents, and on the mechanical powers.
2. To know the structure and action of simple machines.‡

School Management.

1. To teach a class in presence of the inspector.
2. To answer, in writing, questions on the expedients to be used for the purposes of instruction in reading, spelling, writing, and the first four rules of arithmetic.

English Grammar.§

1. Its principles.

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* "Sir,—I am directed by Viscount Palmerston to request, that you will submit to the Committee of Council on Education, for their consideration, that one great fault in the system of instruction in the schools of the country lies in the want of proper teaching in the art of writing. The great bulk of the middle and lower orders write hands too small and indistinct, and do not form their letters; or they sometimes form them by alternate broad and fine strokes, which make the words difficult to read. The hand writing which was generally practised in the early part and middle of the last century, was far better than that now in common use; and Lord Palmerston would suggest that it would be very desirable that the attention of schoolmasters should be directed to this subject, and that their pupils should be taught rather to imitate broad printing than fine copper-plate engraving.—I am, &c.

(Signed) "H. WADDINGTON."

† The course proper for a national school is here meant, being that which can be intelligently taught to persons having a good knowledge of arithmetic. The examples should be taken from the *Builders's Price Book.*

‡ The following machines may be specified: a pump, a door-lock, a house-clock, a gas-meter, a thrashing-machine, a flour-mill, a steam-engine, and an organ. If large diagrams, showing the internal structure of each machine, and lettered to correspond with the paragraphs of a succinct explanation at the foot, were hung on the walls of rooms frequented by the students, such knowledge would be imperceptibly acquired and perfected. The diagrams might be produced, or multiplied, by the students themselves. Models cost more. Frequent dissection is apt to spoil them; and, without it, they are not more intelligible than the machines themselves.

§ All the answers made by the students on whatever subject (not confined to bare figures) should be examined as evidence not only as their knowledge of the particular subject, but also with a view to determining the marks to be allowed to them for grammar and composition. The power of writing plain and clear sentences

2. To parse a passage from the work of some standard English prose author: the work, or part of the work (if long), from which the passage is to be selected being specified at the beginning of the year.
3. To paraphrase the same passage.

Geography.

1. To be able to describe* the outline maps of the four Quarters of the Globe.
2. To be able to describe* the map of each country in Europe.
3. To be able to draw the outlines of the above maps from memory.

History.

The outlines of the History of England (to be known thoroughly).

Euclid.

The first four books.

Algebra.†

As far as quadratic equations (inclusive); with problems.

Vocal Music.

Drawing.

SECOND YEAR.

The Holy Scriptures.

1. The Acts of the Apostles.
2. An Epistle.

Church History

The History of the Reformation in England, with the outlines of Church History in the fifteenth, and early part of the sixteenth centuries.

Reading.

To read with a distinct utterance, with due attention to punctuation, and with a just expression, a passage from Milton's "Paradise Lost," or from Shakspeare.

Penmanship.

(As in First Year.)

Arithmetic.

1. The use of Logarithms.
2. Compound interest and annuities.

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with correct syntax, orthography, and punctuation, is the immediate object of grammar.

The greater part of the questions proposed on Grammar will be founded on words or sentences taken from the work specified. It should be carefully read through, therefore in short portions, as so many *exercises in language, in illustration of the English Grammar used in the College*, just as the Greek or Latin classics we read in public schools.

* The word "describe" is meant to be confined to *words* written as distinguished from *drawing* in paragraph 3.

† *Instead of* (but not in addition to) this subject, students may be examined in Latin as far as the end of page 84 of Yonge's "Eton Grammar" (E. P. Williams, Eton, 1851). This Grammar is mentioned only for the sake of defining the extent of knowledge required: viz., accidence, concord, genders of nouns, perfect tenses and supines of verbs. The paper will be confined to grammatical questions, and to exercises within the limit specified.

School Management.

1. To teach a class in the presence of the Inspector.
2. To answer questions in writing on the following subjects:

a. The expedients to be used in teaching the elements of Geography and History, the higher rules of Arithmetic and Book-keeping.

b. The different methods of organizing an elementary school.

3. To answer questions on the subject-matter of the Reading Lesson-books used in schools.
4. To write a theme on some practical questions of education, founded on moral considerations.

English Grammar and Composition.

1. To paraphrase a passage from the writings of some standard English poet, the poem or part of the poem (if long) from which the passage is to be selected, being specified at the beginning of the year.
2. To analyze the same passage (according to Mr. Morrell's work).*
3. To answer questions on the style and subject-matter of the work, or part of work named.

Geography.

1. Physical.
2. Political.
3. Commercial.
4. Popular Astronomy.

History.

1. The Constitutional History of England.
2. The progress of the people, and of manners and customs in England.

Physical Science.

1. The instruments most commonly used in Mechanics, Hydrostatics, Pneumatics, Electricity, and Optics.
2. The elements of Inorganic Chemistry.

Higher Mathematics.†

1. The sixth book of Euclid, with problems in the first four books.
2. The subjects which follow quadratic equations in Lund's edition of Wood's Algebra.
3. Trigonometry.
4. Levelling, land-surveying, and the first steps in practical astronomy.

Vocal Music.

Drawing.

THIRD YEAR.

The Holy Scriptures.

1. The Bible generally.
2. The Evidences of Christianity.

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* "The Analysis of Sentences explained and simplified," Theobald, London, 1851.

† *Instead of* (but not in addition to) these subjects, students may be examined in Latin to the end of Yonge's Eton Grammar (suprà). An easy passage of Latin prose, and another of Latin poetry, will be given for literal translation into English, and simple grammatical questions will be founded thereon.

School Management.

1. To teach a class in the presence of the Inspector.
2. To write an essay upon a thesis embracing the principles of education.

Vocal Music.

Drawing.

In addition to the above subjects, students of the third year will be examined in *one* of the following subjects, at their option. They will be required to specify the subject at the commencement of the third year.

1. Mental science as applied to education.
2. Experimental science (especially as applied to manufactures and agriculture).
3. Higher mathematics.
4. Languages (ancient or modern), as a means of intellectual discipline.
5. History.

GRANT FOR EDUCATION.—ABSTRACT OF THE SPEECH OF LORD J. RUSSELL.

The House went into Committee of Supply, for this purpose June 30.

Lord J. Russell.—In rising to move the educational votes for Great Britain, I shall have a short explanation to give to the committee, but I shall not think it necessary to make many remarks on these estimates, for the principle upon which these votes are founded is well known, and no change has taken place in the character of the estimates. The whole amount proposed to be voted for public education in Great Britain for the present year is £263,000, but there is a balance from former votes of £80,000, so that the sum proposed to be expended up to the 31st of March next is £343,873. The committee are well aware that the principle on which these estimates have been founded for many years is not the principle of providing generally for the education of the people at large, but rather a system of assisting the voluntary efforts that may be made by the various religious denominations for that end. A few years ago the education given in the schools of the poor was of a very low and unsatisfactory kind. In 1839, and still more by a minute of Council in 1846, various plans were suggested and have been adopted for the improvement of the quality of the education given. I stated on one of these occasions, in 1839, that the great point we had to look to was an improvement in the education and in the character of the schoolmaster—that as was the schoolmaster so would be the school, and, we have therefore, since that period directed our efforts to that end. Great labour has been bestowed with the view of giving efficient instead of inefficient assistance. Instead of monitors, who were part of the system both of Bell and Lancaster, we have adopted the better system of having assistant pupil teachers, which has answered extremely well, and has greatly improved the quality of the education given. Of late years these pupil teachers have greatly increased in numbers. In 1850 there were 1,717 schools, with 4,600 pupil teachers; in 1851, 2,006 schools and 5067 pupil teachers; in 1852, 2,277 schools and 6,180 pupil teachers; and in 1853, 2,546 schools, and 6,912 apprentice teachers—these pupil teachers representing 280,000 children taught in these schools. The vote under this head of grants, to pay the annual stipends of pupil teachers and gratuities to the schoolmasters and schoolmistresses instructing them, this year amounts to £130,000. Another item in the estimate is the support of training schools. A few years ago there was but the one training school at Battersea, and that was very incomplete; but both the Church of England and the other religious denominations have very much exerted themselves in promoting the establishment of training schools. An increased number, both of young men and young women, who have been educated for schoolmasters and schoolmistresses, have received in these training schools a much higher education than they could otherwise have obtained. The average cost of the education given in these training schools is about £40, the young men costing about £50 each per annum, and the young women something under £30. The Government contributes about £20,000, to these training schools. They are now 29 in number, and the annual expenditure of these training schools altogether may be reckoned at about £60,000 , a-year, so that the sum contributed by the public is about one-third of the whole. Upon the general question of education it is not proposed to alter the system which has been approved by this House. I will not enter upon those questions which have been matters of controversy, but I hope before any long time elapses that there will be a greater concurrence of opinion than there is now with respect to the important subject of education. For, although it is shown by the census of education that very great progress in the extent of education given has been made, so that while there was 1 in 17 of the population at school in 1818, it appears now that the number is 1 in 8, yet, although these are the statistical returns, our knowledge and experience of different localities lead us to a very different estimate. That must be considered a very unsatisfactory state of things. No doubt it is relieved by a great amount of voluntary contribution and effort, but the difficulty is one which I fear cannot be wholly reached by voluntary efforts. What we do, whenever persons voluntarily unite, is to assist them by contributing a sum proportionate to the amount of the subscriptions which they pay, and by establishing a system of inspection and of pupil teachers, we assist still more in improving the quality of the education given in these schools. Without that inspection, the conductors of these schools would be ignorant of the improvements made in other places, and the general tone of the school would not be so high as in the generality of these schools I am happy to say is the case. The noble lord concluded by moving that a sum of £263,000 be voted for public education in Great Britain during the year ending March 3, 1855.

ELEMENTARY DRAWING.

The following regulations have been settled between the Right Honorable the Lord President of the Council, and the Right Honorable the President of the Board of Trade :—

Regulations.

1. Pupil Teachers will be admitted to study and practice at any Schools in connection with the department of Science and Art at a cost to themselves of only half the ordinary Fees payable for Instruction.
2. Upon producing the receipts for the payment of the Fees, and specimens of their Drawings, to H. M. Inspector, when he inspects the School to which such Pupil Teachers are attached, they will have an opportunity afforded them (as part of each annnual examination) to exhibit their proficiency by the performance of an Exercise in Drawing. These Exercises will be graduated according to the scale set forth in the Appendix A.

3. The Exercises thus performed will be forwarded by H. M. Inspector of Schools, with the rest of the papers, to the Council Office, whence they will be transmitted to the Department of Science and Art, and, if passed as satisfactory, the person executing them will receive (without charge) from the same Department, such prizes as are specified in Appendix A.

   An Examination may be passed in only one of these stages in each year.

4. Students at Training Schools, and Candidates for Certificates of Merit, will be examined annually, at the usual period, viz. Christmas.

   The Examinations will imply two years of study, and will be graduated for the first and second year, according to the scale set forth in the Appendix B.

   The Exercises worked by the Candidates will be marked according to their merit; the marks so awarded will affect the general Certificate; and a special list will be made out of those Candidates who, having passed the Examination for the second year, are held by the Department of Science and Art to be competent to act as Schoolmasters, to give instruction in Drawing as part of their general teaching.

5. The Committee of Council on Education will place a value on these Certificates of Competency. Every Teacher who obtains a full second year's Certificate for Drawing, will be allowed to receive an addition of £1 a year to his annual allowance from the Committee of Council on Education for every Pupil Teacher (up to a maximum of £3) who is instructed by him in Drawing, and who satisfies the Department of Science and Art with his annual progress according to the foregoing provision.

Masters and Mistresses already in charge of Schools under the inspection of the Committee of Council, may obtain the same emoluments by passing suitable examinations at the Provincial Drawing Schools, or at the Department of Science and Art in the Metropolis.

APPENDIX A. *(Pupil Teachers).*

First Year. Drawing freehand from flat examples. *Prize*, a case of Mathematical Instruments, 20s.

Second Year. Linear Geometry by means of Instruments. *Prize*, a work on Perspective, and implements, T square, &c., 20s.

Third Year. Linear Perspective, by aid of instruments applied to plans, geometrical figures, and geometrical solids. *Prize*, a book containing examples for drawing and shading, 20s.

Fourth Year. Freehand Drawing and Shading from solid models. *Prize*, a book containing examples for colouring, 20s.

Fifth Year. Drawing and Shading, from natural forms and objects. *Prize*, a box containing water colours, and implements for colouring, 20s.

APPENDIX B. *(Scholars in Training Schools.)*

First Year. Drawing freehand from flat examples, Linear Geometry, by aid of instruments. Outline Drawings from Models.

Second Year. Linear Geometry, by aid of instruments, Linear Perspective, Shaded Drawing from objects. Drawing of objects from memory.

GLANFORD BRIGG SCHOOLMASTERS' ASSOCIATION.

At the July meeting of the Glanford Brigg Church Schoolmasters' Association—the Rev. W. H. Flowers in the chair,—the Rev. W. S. Humphrey, one of the Hon. East India Company's Chaplains, gave an interesting lecture on

British India, in which he elucidated many important facts of the Physical and Descriptive Geography of that portion of the British dominions. At the conclusion, he gave much useful information in answers to questions put by several of the members. At the close, a vote of thanks was given to the rev. gentleman for his valuable lecture.

SURREY CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION

The members of this association held their first annual meeting at the Town Hall, Reigate, on Saturday, June 24th, when the Lord Bishop of Winchester, the patron, honoured the meeting with his presence, and presided on the occasion.

The meeting was numerously attended by clergy, schoolmasters, and others interested in the cause of popular education, including T. S. Cocks, Esq., M.P., and the Rev. W. H. Brookfield, one of her Majesty's Inspectors of Schools.

Prayer having been offered by the Rev. I. N. Harrison, the vicar of Reigate, the right rev. Chairman addressed the meeting, and in the most eloquent terms and with the greatest cordiality expressed his entire approval and approbation of the objects of the society. Every schoolmaster must have been fully assured that his lordship's sympathy was with him and the little ones of Christ's flock committed to his care; and, as his lordship spoke of the happy hours which, as a country clergyman, he had spent in the village school, all must have felt that, following the example of his Divine Master, he would still command the children to "be brought to him, he would lay his hands upon them and bless them." His Lordship concluded by calling on the secretary to read the report.

After the report, the meeting was addressed by several gentlemen. We regret that we can find space but for one, that of one of H. M. Inspectors.

The Rev. Mr. Brookfield said he was here to-day that he might, by his humble presence, do an act of homage and gratitude to those persons who had to boast that this celebration took place under the responsibility and encouragement of the highest educational authority in the diocese. He might extend his range far beyond that—he might speak not only of this diocese, but of the province of Canterbury; nay, more than that, he might speak of the whole realm of England, and he might quote the words of one of the most active promoters of education they had, who said, "After all there is not a Bishop in the Church that has done as much for education as the Bishop of Winchester." The motives and feelings with which he put this forward would not be misinterpreted. It was because of his lordship's pre-eminence as a judicious promoter of education—his allowing himself to be at the head of this celebration, and of this institution;—it was because of his value as an educationist, not less than as a prelate, that his presence here was so important a symptom. Let them not disguise from themseves the fact, that these institutions would be the subject of comment before long, if they had not been so already, and while they had the Bishop of Winchester at their head, they had a guarantee, he being a person combining the two frequently incompatible qualities of the liberal and judicious,—they had a person at their head, who was a guarantee for their own freedom of action, and at the same time, for the judiciousness with which they were proceeding. For their society, they knew, many of them, that he had been in a quiet way, agitating for its establishment, and that he had seldom visited a town school without representing the desirableness of the masters uniting for such purposes. He had heard something that day of the tendency of this institution to promote intellectual improvement; more of its creating a kindly feeling amongst them. Now, he remembered a time when of all lowly things in creation, a teacher was the lowest. There was a sense in which, apart from connubial ties, it was not well for man to be alone. There was a tendency in all classes to organize, and of course schoolmasters would organize, too, and if that had not been sufficiently evident, the tone of the meeting to-day, the manner, the appearance, and the language showed how much good could be done by the teachers mixing with each other, and with the rest of mankind (applause.)

The officers elected were the President, the Rev. J. C. Wynter (Gatton); Vice-Presidents, Rev. J. N. Harrison (Reigate); Rev. H. Gosse (St. John's, Redhill); and Thomas Martin, Esq., Reigate; Treasurer, George Baker, Esq. (Reigate); Hon. Sec., Mr. Robert Read (Reigate); and Committee, Mr. Ceaton (Dorking), Mr. Denner (Redhill), Mr. Hildred (Merstham), Mr. Shipperly (Reigate Union), and Mr. Woodland (Kingswood).

THE LEICESTER AND LEICESTERSHIRE CHURCH SCHOOLMASTERS' ASSOCIATION.

This Association, which was formed on the 21st of last January, promises to become flourishing and useful. Already there are thirteen "Honorary" and fifteen "Ordinary" members, the former consisting of the clergy and gentry, the latter of elementary teachers.

The first quarterly meeting was held at the Temperance Hotel, Leicester, on the 15th April, which was well attended. A paper was read by the Rev. E. Smythies, President, on the "Advantages and Disadvantages of Mixed Schools."

The second quarterly meeting was held at the same place on the 15th July, when a paper, by Mr. Robson of Hathern, was read, on "History," which was greatly commended by the chairman and teachers; the reading of the paper was followed by a discussion on the "methods" of teaching history in our schools.

A very beneficial plan has been adopted by the Association, viz., that of visiting the schools conducted by its members. Very gratifying visits have been made to the schools at Old Dalby and Melton Mowbray. The clergymen at these places very kindly and liberally entertained the teachers on these two occasions.

William Taylor, Secretary.

THE CHURCH OF ENGLAND SCHOOLMASTERS' AND SCHOOLMISTRESSES' MUTUAL ASSURANCE SOCIETY.

The Fifth Annual Meeting of the honorary and assured members of this Society, was held at the offices, 25, Bridge Street, Westminster, on Wednesday, June 28th, 1854, at six o'clock, the Rev. John Gylby Lonsdale, one of the Trustees of the Society, in the chair.

The officers of the Society were elected for the ensuing year. A vote of thanks was given to the Trustees, Treasurers, Directors, Auditors, and other officers of the Society, for their past services, and to the Rev John Gylby Lonsdale, for his able conduct in the chair.

FIFTH ANNUAL REPORT.

The Directors have much pleasure in presenting the following Report of their proceedings during the past year.

The number of Policies granted during the year has been as follows, viz:—

72 Assurances upon Life, to the amount of	£5,790
33 Endowment Assurances	1,365
Together representing a sum assured of	£7,155

And 42 Assurances for Sick Provision and annuities in old age, making a total of 147 new assurances effected; thus increasing the amount assured to the sum of £31,305.

The Income of the Society from the Premiums upon 556 Assurances (the total number in force on the 29th day of April, the date of the Balance Sheet) is £1,389 10s. 8d., which with 13 Assurances made effective since the 29th of April, and 15 others in course of completion, increasing the prospective Annual Income upon the Premium account to the sum of £1,465 12s. 1d.

The Directors congratulate the Members upon the small number of calls upon the funds of the Society, on account of sickness and death during the year. Only 2 cases of each have occurred, calling for payment to the amount of £139 17s. 9d. This, it is hoped, will satisfy the Members that great care and attention have been bestowed by the Directors in the examination of proposals for Assurances.

The Directors would remark that since the formation of the Society, nearly £500 have been paid out to Members and their families, by which, valuable assistance has been afforded in times of affliction, caused by death and sickness, thereby proving the advantages of the Christian duty of prudent forethought.

The accounts up to the 29th of April, 1854, have been audited as usual, and their accuracy attested by the Auditors.

It will be seen by the Balance Sheet, now submitted to the Members, that the Directors have been enabled to invest the additional sum of £1,080 19s. 2d., making the total balance in favour of the Society at that date £2,065 6s. 5d.

During the last six months, Agents have been appointed by the Directors in various parts of the country, for the purpose of introducing new Insurances, and through them thirty-seven proposals have been received; a much larger accession may be anticipated when these arrangements have time to come into full operation.

The Directors have much pleasure in tendering their thanks to the Honorary Members for the kind assistance afforded to the Society.

In conclusion, the Directors, while thanking their fellow members for the support which has enabled them thus far to fulfil their duties, would again impress upon them the propriety of individual exertion, in placing prominently before their scholastic friends the advantages which this Society is intended to afford, that by their united efforts it may become one of the most prosperous of its kind, and realize the most sanguine expectations of its founders

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APPOINTMENT OF MANAGER TO THE MICO CHARITY, ST. LUCIA.

Mr. Alfred Williams of the Sunningdale N. S., Windsor, is about to proceed to the West Indies as Manager and Inspector of the Schools established by the Trustees of Lady Mico's Charity in the Island of St. Lucia. Mr. Williams will also fill the Head-Mastership of the Model School in Castries, the capital of the Island.

POSITION OF THE TEACHER.

The (American) "Richmond Examiner," in connexion with the recent trial of Ward, of Kentucky, has the following theory on the extinction of schoolmasters in general:—"The South has for years been overrun with hordes of illiterate, unprincipled graduates of the Yankee free schools (those hot-beds of self-conceit and ignorance), who have, by dint of unblushing impudence, established themselves as schoolmasters in our midst. So odious are some of these 'itinerant ignoramuses' to the people of the South—so full of abolitionism and concealed incendiarism are many of this class—so full of guile, fraud, and deceit—that the deliberate shooting one of them down, in the act of poisoning the minds of our slaves or our children, we think, if regarded as homicide at all, should always be deemed perfectly justifiable; and we imagine that the propriety of shooting an abolition schoolmaster, when caught tampering with our slaves, has never been questioned by any intelligent Southern man."

NOTICES OF BOOKS.

The British Controversialist; first half-yearly Vol. 1854.—Houlston and Co. —In this volume we recognise the same effectiveness as in its predecessors; we think in some points it is superior. We need hardly repeat our commendations, and will only add, that so well and extensively are its merits underunderstood, that the earlier volumes have been several times reprinted.

The Educator. New Series. —Ward and Co.—This little serial is the representative of the "Congregational Board of Education," and is therefore devoted to the support of such Denominational Schools as "under no circumstances receive aid from public money, administered by Government." The short paper on Continental Education will be read with interest by those who concern themselves with the relative position of England, in reference to the Education of the People. The Report of the Congregational Board extends over twenty pages, and affords proof of vigorous action on the part of the authorities. In being only since 1843, it yet numbered 453 schools at the census in 1851. It has moreover provided a College at Homerton at a cost of upwards of £11,000, and to which five schools are attached, for developing the "Training System," and practising the students. The report states that in the schools connected with the Board, the average salary of male teachers is £76 18s. 4d.; that of females £42 17s. This high average of salary is noticed in the recent volume of Minutes by one of H. M. Inspectors.

The Cultivation of Truth.—Mackintosh, London.—A little book, but of very great value. Every teacher should have it for himself, and present a copy to each of his subordinates.

The Book of Health. By R. J. Mann, M.D., (Gleig's Series).—Longman and Co.—This work is full of matter of the most valuable character, and written in a popular and lucid style. Though connected with a series of school books, it is well adapted for general use,—a manual fitted alike for youth or age. It contains chapters on the Nature of Life, Elementary Materials of Organised Structures, Food and Digestion, the Blood, Circulation and Respiration, Structure of the Human Body, Muscular and Nervous System, Secretion and Natural Decay, Health and Disease, Food, Drink, Air and Exercise, and Climate, in relation to Health. The elementary teacher will find in the "Book of Health" many good lessons, ready for immediate use, on one of the most important of "Common Things."

The Solar System. By H. Reid.—Longman and Co.—The first of a Series of Educational Tablets. The "Solar System" is printed in a large bold type, upon a sheet, for a Wall Tablet. It embraces abstracts under the following heads:—The Sun, Motions, Forces, Orbit, Kepler's Laws, Ecliptic, Phenomena, and Seasons, besides tabulated Diameters, Distances, Periods, &c. In schools where the elements of Astronomy are taught, whether by collective lessons or from text books, this sheet will prove a valuable auxiliary.

The Advantages of Mutual Instruction and Debating Societies.—Houlston and Co.—A tract which should be read by all who have any interest in this mode of Intellectual Discipline. In addition to the Advantages of Discussion, rules are given for its guidance, with a list of questions suitable for discussion. The essay is worthy of commendation, not only for its high intelligence, but for its spirit of fairness. The following paragraph deserves the best attention of Discussion Classes—"We must not, however, allow ourselves to be misunderstood. These Societies do not so much instruct as exercise the mental powers. They do but give direction to the knowledge-appetite, and stimulate it to useful and continuous exertion. They do not enlighten the mind upon the validity of facts, but upon the accuracy of opinions. A subject is placed before the mind for contemplation, concerning which, an opinion is to be formed; but the facts concerning it, and the opinion which a consideration of the facts suggest, are to be gleaned in hours of study—are to be acquired by investigation and thought. The facts must be diligently accumulated, and accurately estimated; the opinion formed with deliberation and circumspection; viewed upon all sides, and compared with the facts upon which it is based." Here lies the secret, and whether a Discussion Class shall be profitable or otherwise, depends altogether upon the adoption of the ideas expressed in this quotation. Few things in connexion with these societies are so disheartening, as the endless and ignorant twaddle uttered by individuals who have been at no pains to master the question under discussion, and hence struggle to cover their ignorance by a multitude of words, expressing no idea of their own, and conveying none to others.

Correspondence.

SIR,—There is no question that the Educational Exhibition will be productive of great good; but I would submit that it is deficient in one most important element. School-books are represented, school apparatus is represented, the different branches of education are represented; but the processes of teaching and the mental phenomena attending them are, I think, *unrepresented*. In your last paper it is observed that the different sciences have been improved and perfected by those whose business it was to practise those sciences, and by parity of reasoning, education must be improved by those who carry it on. Yet, strange to say, the real educators, the schoolmasters, by whom alone the processes of teaching can be improved, and the mental phenomena attending them be ascertained, has no appointed place in the Exhibition, and in consequence the *experience* of all our best teachers will probably remain isolated and disconnected, and to a large extent unproductive. On the contrary, were they permitted, either by lectures or conversations, to furnish the results of their experience to the general fund, much good undoubtedly would accrue; for it is not so much new books, new apparatus, new subjects, no, nor new plans, that we want—we want to become acquainted with such processes of training the mind, and influencing the will, as will secure the greatest amount of mental culture and the largest degree of moral suasion; and this, I apprehend, is only to be obtained by a comparison of the processes of training adopted by our best teachers. I lay stress on this, because I feel convinced that no other class of men is in a position to furnish the required data. The indirect teaching of every master is very considerable—punctuality, neatness, manner, impartiality; but what we want is, to know by what methods mind has acted upon mind, and with what results, and whether such methods are generally applicable.

The philosopher, in his experiments with matter, has certain fixed principles on which he rests, and he aims at no undefined results, nor acts upon uncertain laws. The physician, in his dealings with the body, proceeds also on fixed principles—he knows the nature of the disease, the character of the remedy required, the course his medicines will take, and the symptoms they will produce; but the teacher, who has a higher and a nobler sphere of action, who produces effects more lasting and important, who has to deal with mind and soul, and whose influence consequently stretches beyond the confines of time, alone acts with uncertainty, and beats the air—his mode of operation undecided, his plans uncertain, and the results fortuitous. I would suggest that the only mode of obviating these evils is by instituting a comparison between the results of the teaching of our most successful masters, and if we can obtain the processes by which the different branches of education are rendered evanescent or permanent, we shall be in a position to inaugurate a system of processes which will really educate the masses, and benefit the world at large.

The present Educational Exhibition appears to me to offer the opportunity of effecting such grand results, and I am convinced that teachers would hail the attempt with the sincerest gratification. J. S.

Examination Papers.

(Continued.)

GENERAL EXAMINATION OF CANDIDATES FOR REGISTRATION.

EASTER 1854.

HISTORY.

SECT I.—1. State what you have read of the invasion of Britain by the Romans.

2. Give a short account of Caractacus, or Boadicea, or Agricola.

3. What circumstances, and at what date, led to the final departure of the Romans from Britain?

SECT. II.—1. Mention the chief events in the reign of Henry II.

2. Write what you remember about the battle of Cressy, or Poictiers, or Agincourt.

3. What were the chief inventions during the time of the Plantagenets? Give dates when you can.

SECT. III.—1. Name the sovereigns of the House of Stuart, and describe shortly the character of one of them.

2. Write what you have read about the Great Plague, or the Fire of London.

3. What was the state of England at home and abroad during the protectorate of Cromwell? Give reasons for your answers.

ENGLISH GRAMMAR.

SECT. 1.—Name the parts of speech, and describe the precise use of each of them.

2. Explain what is meant by a common, a proper, and an abstract noun; and point out the different methods of indicating the possessive case, and the plural number.

3. How many kinds of pronouns are there? Decline the third personal pronoun throughout in gender, number, and case.

SECT. II.—1. What is meant by an active, passive, neuter, regular, irregular, and defective verb? Give an example of each.

2. Give the 1st person singular of the verb "to draw" through all its moods and tenses, and point out all the participles.

3. Give a classification of auxiliary verbs, and show what purpose they each of them serve in the conjugation of a principal verb.

SECT. III.—1. When must a noun or pronoun be in the nominative, and when in the objective case?

2. What is a simple sentence? Of what principal parts does it consist? Wherein does it differ from a compound sentence?

3. Is the following sentence simple or compound?—"The path of virtue, pursued with a constant step, will assuredly lead us at last to happiness." Prove your answer by analysing the sentence; and parse the words.

SECT. IV.—1. Paraphrase the following stanza:

> "Who noble *ends* by noble means obtains,
> Or *failing*, smiles in exile or in chains,
> Like good *Aurelius* should he *reign*, or *bleed*,
> Like Socrates, *that* man is blessed *indeed*."

Parse the words printed in italic.

2. Write a short account (with the causes) of the difference in the language of England as used in the times of Alfred, Henry II., Edward III., Elizabeth.

3. What is meant by a *prefix*, an *affix*, and the *root* of a word? Divide each of the following words into its prefix, root, and affix; and state from which of the several sources of the English language each of them is derived: 'benefactor,' 'forgiveness,' 'diametrically,' 'surprising.'

SCHOOL MANAGEMENT.

SECT. I.—1. Write full directions to a monitor or pupil-teacher for giving a *reading* lesson in the First Book of Easy Narratives.

2. What series of *reading* books do you use in your school? Give an exact account of the contents of the highest book in the series.

3. Prepare twelve questions on each of two lessons selected from the reading book used in your *second* class.

SECT. II.—1. Give exact directions for a pupil teacher to dictate and correct a written exercise in your *first* class.

2. What quantity of desks do you require for a school of 120 children? Describe exactly the arrangement you would prefer, and the dimensions of the desks.

3. Make out a list of the apparatus you require for a school of 100 to 150 children, with an estimate of the cost.

4. Do you allow places to be taken? If so, in what lessons? State the reasons for or against the system.

SECT. III.—1. In a school of 120, what assistance do you require in teaching? State exactly how you would employ each assistant.

2. Specify the attainments which you think ought to be possessed by a clever boy or girl from twelve to thirteen years of age, who has been regularly educated in a good school.

3. What use do you make, or propose to make, of a play-ground? To what extent would you mix with your pupils in recreation? State fully your reasons.

SECT. IV.—Prepare the notes of a lesson on one of the following subjects, and state what illustrations you propose to use, and in what manner you would make the children reproduce it:—coal, vapour, strikes for wages, the seasons, wastefulness.

SECT. V.—Name the text books which you would recommend a pupil-teacher to procure in the first two years of apprenticeship.

2. At what time do you propose to instruct your pupil-teachers for one and a half hours daily out of the ordinary school-hours, as is required by the Minutes of 1846? Make out a syllabus for the work of the first six months.

3. Write out rules for the personal habits of pupil-teachers, with especial reference to their health.

4. What are the chief moral difficulties in training pupil-teachers? How do you propose to deal with these difficulties?

EXTRA PAPER.

EUCLID. *First Section.*

N.B. This paper contains three subjects (viz. *Geography*, *Algebra*, and *Mechanics*), one or other of which must be taught to male pupil-teachers in the later years of their apprenticeship.

Candidates are not permitted to answer questions in more than *one* of the three sections into which this paper is divided. *No marks will be given for papers in which this direction is not observed.*

No pupil-teacher will be allowed to commence apprenticeship after the 1st of January, 1855, with masters who have neither obtained certificates nor passed for registration (*including this paper.*)

Mistresses are *not* required to attempt this paper.

Masters *declining this paper, but passing satisfactorily in the others*, will be accepted in fulfilment of the conditions of the Minute of 2d April, 1853, and will not be disqualified to remain in charge of all pupil-teachers apprenticed to them before 1st January, 1855.

1. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise the included angles equal, then their bases or third sides shall be equal, and the two triangles shall be equal, and shall have also their other angles equal, each to each, namely, those to which the equal sides are opposite.

2. Parallelograms on the same base and between the same parallels are equal to one another.

3. In any triangle, if the square of one of the sides is equal to the squares of the two other sides, the angles contained by those sides is a right angle.

4. If a straight line be divided into any two parts, the squares of the whole line and of one of the parts are together equal to twice the rectangle contained by the whole line and one of the parts, together with the square of the other part.

5. To construct a square equal to a given rectangle.

6. If a straight line passing through the centre of a circle bisect another not passing through the centre, it shall cut it at right angles; and if it cuts it at right angles it shall bisect it.

7. The angle in a semicircle is a right angle; the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

8. To inscribe a circle in a given square.

ALGEBRA. *Second Section.*

1. Add together $(a+x)$, $2\,(x-a)$, and $\frac{3}{2}x$; and from $(x-y)^2$ take $\overline{x+y}.\ \overline{x-y}$.

2. Reduce to its simplest form the expression $\frac{2}{2x-2a}\ \frac{2}{x^2-\ a^3}\ \frac{1}{x+a}$.

3. Find the square root of $x^4+6\,ax^3+a^2x^2-24\,a^3x+16\,a^4$.

4. Solve the following equations:

$$(a)\quad \left.\frac{3x}{2}-5=9-\frac{a}{4}\right\}$$

$$(b)\quad \left.\begin{array}{l}4x+6\quad y=82\\7y-3\quad x=42\end{array}\right\}$$

$$(c)\quad \left.\frac{10-x}{2x}=\frac{x+5}{x}\right\}$$

5. Coals are now 25 per cent. dearer than they were a few months ago: if they should rise 2s. 6d. per ton, they would be selling at 15s. per ton; what was their original price?

6. A stock-broker, who had purchased 160 railroad shares, sold 120 of them at their full value, 30 at one half, and the remainder at one-fifth of their value, losing thereby £2,300; what did they cost him in the first instance?

MENSURATION AND MECHANICS. *Third Section.*

1. Explain the usual method of levelling, with the use of back and foresights on staves.

2. Find the cubical contents of a school-room of the following dimensions, viz. area 50 feet by 18 feet, height to eaves 12 feet, height to ridge 20 feet.

3. The diameter of a shilling is $\frac{15}{16}$ of an inch, and the diameter of half-a-crown is $1\frac{1}{4}$ inch; how much larger is the surface of one than the surface of the other?

4. How many tons of coals will an engine of 12 horse power raise in an hour from a pit the depth of which is 30 fathoms?

5. In the common lever, when the power and the weight are on opposite sides of the fulcrum at unequal distances, and they exactly balance each other, show that they are to each other inversely as their distances from the fulcrum.

6. In what time will a stone let fall from the top of a tower 150 feet high reach the ground?

PAPERS FOR THE SCHOOLMASTER.

No. 43. SEPTEMBER 1, 1854.

A New Want in Education.

Education may seem to have made hitherto, but a slow progress in this land of proverbial caution, but we are nevertheless confident that it has been a sure one. We may have found it hard to overcome the original *vis inertiæ*, but this having been once accomplished, it is acquiring daily additional momentum. The subject, at one time totally unheeded, has now taken its place among the great questions of the day, itself perhaps the greatest; inasmuch, as from educating classes, we are advancing towards educating the community. The very phrase, "the Educational Question," is itself one of promise, for we live in days in which a "question" once being propounded, men are not wont to leave it long without a solution, or at least without an endeavour to approximate towards one; while to this advancing approximation we attach another name, equally significant, in speaking of "the Educational Movement." While the matter is still "a question," we feel that the answer is being continuously worked out by the very progress of the enquiry. It has been highly beneficial to the cause that this progress has been a cautious one, that conclusions have not been too rapidly assumed, nor an authoritative and exclusive patent given to any educational machinery, which, however plausible on paper, might have been found to be practically useless. The mechanist, when endeavouring to obtain a required effect, by the resources of his science, watches patiently the working of his first conceptions, until by additions and re-arrangements, he at length produces a specimen of mechanical perfection. The voyager in unknown waters, does not set every sail, possibly only to rush and founder on some hidden danger, but while his vessel may seem to lie lazily at anchor, prepares for a more safe advance, by trying the channel with his sounding line, and noting the bearings upon his chart. Our educational knowledge has been obtained in a like spirit, and by a somewhat similar process. We are daily becoming more aware of the true character of our position, and of the nature and amount of our deficiencies; while the data which have already been obtained, will be invaluable to the future legislator. From an increased amount of knowledge on educational subjects, we have obtained already, a steadily advancing improvement in educational systems. The "Training College" has become no unfrequent building, the "new school room" is rising daily in our towns and villages, and sufficient supplies of the apparatus of instruction are ready to the hand of the trained and energetic teacher. Still, we cannot regard these signs of advancement, as though they were the marks of a boundary which had been reached, but rather as the "mile-stones by our way, telling us indeed the distance passed over, but the journey also which yet lies before us." Then asks the reader, with so much satisfactory in improved schools, teachers and systems, what is the "New Want in Education?" Our disheartened teachers, and earnest educationalists will answer, —"Scholars." And the walls of many an empty school-room will re-echo, "Scholars." Most loudly would rise in the response the voices from our manufacturing districts. "The sound of our teaching," they would say, "is overpowered by the din of the machinery which surrounds us, the receipts of our school exchequer on the Monday, most seriously diminished by the superior attractiveness of the Saturday payments from the counting-house." The most pressing educational want is undoubtedly in many districts, "Scholars." The advantage of a sound and real education, has in many instances been offered, and found unattractive; it is unable alone to compete successfully with the money-getting spirit, which pervades even our working classes. It might be more correct to say, the money-spending spirit, for the child is not in the majority of cases, hurried into premature employment in order to supply either itself or its parents with the necessaries of life, but to obtain the means for vicious indulgences. The case would be different, if it were the home of the artizan, and not the gin-palace, or the beer-shop, which benefited by the decline of the school-room. As the result of past neglect, we can scarcely expect matters to be otherwise, but they supply a question for present consideration; whether a similar and continued indifference is to perpetuate like consequences into another generation? It has assuredly become a subject for discussion, as a part of the "Educational Question," whether a point has not been reached in our onward "movement," when a want is felt not so much of Government aid, as of Government interference; and that, not to force unwilling pupils into the school-room of an incompetent master, at the cost of a justly reluctant parent; but having secured the character of the instruction, to interpose between the selfish spendthrift, and his uneducated toiling child. The sober and industrious artizan is the last to withdraw his child from school, even when under the pressure of straitened circumstances. He has a regard for the physical, as well as moral and intellectual well-being of his little ones, which needs no legislative prompting; it is to protect the child of the greedy and improvident, that legislation has become almost a necessity. If it should be affirmed that such a principle is overbearing and unjust, and such interference needless and uncared for, then, the measure known as "The Factory Act," requires the repeal of its educational clauses. We must either regard that enactment as a step taken in the right direction, and as a partial good, or as a legislative mistake, and a class injustice. But, if its educational requirements are well-founded, and its working, in the districts in which it operates, is found to be beneficial, then, the question presents itself, why wherever similar child employment and consequent ignorance exists, should not similar legislation be applicable? The principle of such legislative interference is already recognised, nor do we think in the particular instance in which it has been exemplified, is its correctness likely to form again a subject for discussion. It is not the principle which is any longer a question, but the extension of its operation. It certainly appears anomalous, that when a diversity of employments require the same hours of labour, and that, at least equally toilsome, and commenced at an equally early age, that one of them alone should be legally and necessarily united with education. The connection is apparently inexplicable, between slave drivers and ignorance on one side of the Atlantic, and schoolmasters and education upon the other. It is not any new untried principle which is required to supply the lack of scholars, but the extension of an existing one, that a certain age must be reached before full employment be legal, not as now, in one only, but in any branch of manufacturing industry, and that until that age, school be made the necessary concomitant of partial employment. The Registrars' office might supply the best and indispensable certificate of age, for even at present, but a slight chance of education has the little one, whose strength and constitution enable it, however juvenile, to share the counterfeit presentment of "a child at the reasonable size and strength of thirteen years," while the medical officer, relying as he must on information too often falsified, and on appearances equally deceptive, unwittingly consigns to lasting ignorance, and premature toil, the child whose chief misfortune is a healthy physical conformation. Legislation on this point, which might appear at first sight to be merely on behalf of the school, would be soon found to be in reality for the benefit of the child, and eventually of the people. The English child is a toiling one, with but brief season for childhood's fitting recreation, or necessary education; and such will he continue, so long as his future knowledge and happiness can be bartered for a little present gain. Arrived at manhood, he looks often too justly on his labour, as that which has degraded him into a mere machine. His earliest memories are those of toil; he has acquired it is true, a mindless mechanical dexterity, but no one, so far as he remembers, has informed his intellect, and no man cared for his soul. A dim haunting consciousness that he was designed for better things, if not drowned in sensual pleasures, drives him into discontent, and he falls an easy prey to the specious infidel, and the noisy demagogue. It is to remedy these evils, and to avert their consequences, that legislation appears necessary. The day is, it is to be hoped, past, when education was thought to unfit the working-man for his position, it is discovered that it may even specially fit him for his employment. For no one is education designed to be a mere bye-play to the more serious business of life, and that interference which would render it in connection with certain circumstances compulsory, is to be regarded only as a wise precaution, that a present short sightedness should not deprive the child of the main element of future success. Saying nothing hastily of a certain amount of school attendance being made a previous necessary qualification for employment in certain branches of industry, we return to the simple "question" which we have opened up, and mooted, whether or no, the want of scholars, an acknowledged and widely existing evil, does not admit of the application, by extension, of an existing remedy?

M. U. R.

Decimal Coinage.

No. I

1. As a New System of Calculating Money seems all but determined upon, it will be interesting to anticipate the change, and endeavour to point out the object that is contemplated by it. That object is to facilitate operations in the reckoning of money. At present our coins are arranged upon no fixed principles; that is, we pass from the larger to the smaller upon no fixed rule. Thus, the shilling is 1-20th of a pound, which is a *decimal* (*decem*, ten) division, while the next coin, a *penny*, is 1-12th of the shilling, following a *duodecimal* division; the farthing is $\frac{1}{4}$th, which again follows the duodecimal division. But by the new plan it is proposed to descend by tens systematically, and to discard the division by *twelves* altogether.

2. The following will probably be the division that will be adopted: A pound will be divided into ten florins, and a florin into 100 cents.

3. On this plan, a cent being a 1000th part of a pound, a farthing, which is only a 960th part, will be to a cent in value, as 960 is to 1000; or in other words a cent will equal in value 960-1000ths, or 24-25ths of a farthing; and a florin being 1-10th of a pound, will be 2s. The following table will present the value of the new coinage, according to the present scale of valuing:

	Cents.	s.	d.
Sovereign	1000		
$\frac{1}{2}$ sov.	500		
Florin	100	2	0
$\frac{1}{2}$ ditto	50	1	0
$\frac{1}{4}$ ditto	25	0	6

	Cents.	d.
10 cent piece	10	$2\frac{2}{5}$
Copper 5 cent piece	5	$1\frac{1}{5}$
2 ditto	2	
1 ditto	1	$\frac{24}{25}$ far.

The advantages of the new system it will not be difficult to see. On the present plan money sums are necessarily reckoned by what is called *compound* arithmetic, while on the new plan the four simple rules will suffice. Thus, £56 8s. must be separately written, and cannot be placed under one denomination; unless we convert the £56 into shillings. But £56 8*f* may, be set down as £56.8; since $.8 = \frac{8}{10}$ and the fraction of a £ represents the value of 8 florins. So again, £56 8f. 26c. may be at once written down, £56.826, because 8 florins being the same as £$\frac{8}{10}$, and 26 cents the same as £$\frac{26}{100}$, it follows that 8f. + 26c. $= \frac{8}{10} + \frac{26}{100} = \frac{826}{100} =$ .826. We may conversely read £56.826, as £56 8 florins and 26 cents; or, if we prefer it, we can read it as £56 and 826 cents, for both ways will be correct.

Rule I. *To pass from the Old to the New method.*

By reference to sec. 3, it will be observed that, for every even number of shillings there will be half as many florins, and that an odd shilling is equal to 50 cents. Again, the pence and farthings being converted into farthings, there will be as many cents as farthings, with an additional cent for every 24 farthings. The sum total will give the answer.

Ex. (1.) Express 19s. 4d. in the Decimal Scale.

s.	s. s.		f.	c.
19s.	= 18 + 1	=	9	50
4d.	= 16 farthings	=		16
			9	66

Ex. (2.) Expreſs £5 18s. 6½d. in Decimal Money.

£ s.		£	f.	c.		£
5 18	=	5	9	0	or	5.9
6½d. = 26 farthings	=			27	or	.027
		£5.927			or	£5.927

If we wish to prove the correctness of these results, or, in other words, re-convert these sums into ordinary money, we must bear in mind that, for every florin we have 2 shillings, and the whole number of cents will be the same number of farthings, deducting one farthing for every 25 cents.

Thus in Ex. (1.) the 9 florins give 18 Shillings, and 66 Cents = 1s. 4d.

		s.	d.
9 florins	=	18	0
66 cents = (66—2) farthings	=	1	4
		19	4

And in Ex. (2.)

			£	s.	d.
£5	”	=	5	0	0
9 florins	”	=		18	0
27 cents or (27—1) farthings		=			6½
			£5	18	6½

The Rev. Dr. Bell and the Madras System.

No. II.

Reading. “These lessons (easy reading) are taught by writing, by spelling on and off books, by reading, by pauses and clauses, and by an examination on the meaning of what is read.

“An observation of Quintilian will serve to illustrate the use of pauses. ‘The difficulty (he says) of learning to read is, that, while with the voice we are pronouncing one part of a sentence, with our eyes we are looking forward to another.' To this may be added, that, at the same time, we are gathering the meaning of the whole sentence in our mind.

"Now in the National Schools, an attempt has been made with good success, to obviate this difficulty; and as has been said before, *to fix the eye, the voice, and the mind,* on a single object in succession, by the sub-division of the lesson into pauses, which not only conduces greatly to correct reading, but also to the understanding of what is read. The combining of two or more ideas, puzzles and perplexes children; for which the best remedy is, to accustom them to distinguish, by an intermission in reading, and to dwell upon each of the minutest sub-divisions in the sense.

"Another advantage of pause reading in the initiatory and short lessons is, that by the quick succession, it distributes a minute portion of the lesson to each member of the class, without reading it over oftener than is necessary to learn it. Besides which it is the best introduction to reading by classes.

On the formation of *style* in reading the Dr. remarks;—"In the daily repetition by heart, let every scholar be taught to rehearse prayers, graces, catechism, &c., in the style and tone of a good reader, which all will soon be able to do, while their organs are pliant, by imitation, as they unceasingly repeat them with their instructors and fellows; and if the same rule be observed, in regard to the first paragraph and section, in beginning to read, a better manner may be acquired in a few lessons, than is often attained while at school, under a vicious or faulty tone.

"The advantage of perfect instruction will be understood, by remarking how much of this difficulty of learning to read is gradually done away, by removing every obstacle on its first occurrence; of which specimens may be seen in the stops and points which occur in every sentence, and in those words of most frequent use, of which it is said three or four score, counted every time they occur, amount to one half the number of words in any book. The same observation applies to the construction and analysis of sentences, owing to the similarity among them. One lesson perfectly learned, the next is in part known, and a habit of attention and accuracy, which is of no small importance, is acquired.

"As in many schools there is much waste of time, occasioned by passing slightly over what is most important, and unknown; so is there in others, by repeating and dwelling on what is less material, and already well known. The true art of tuition consists in tasking the abilities of the scholars sufficiently to obtain a perpetual interest, and call forth a moderate exercise of the faculties of the mind which is no less grateful than the moderate stretch of the muscles of the body; and by not imposing on them burdens beyond what they are readily able to bear. Perfect instruction in a progressive course of study, by the love of knowledge natural to man, and of novelty (the great parent of pleasure, especially to children) renders a school a perpetual source of enjoyment to the infant mind."

Interrogation. "By examining the scholar, in the course of his studies, in every sentence, and much more, if they examine one another by questions, put in every way, as they go along, you will certainly discover whether they understand what they read, and can instruct them wheresoever they are deficient. The questions are varied with the progress and attainments of the class, and frequently rise out of the answers that are made. By never analysing a sentence, or attending to its meaning, scarcely a sentence in the whole book is understood; whereas, by analysing a sentence, and doing it well, a great progress is made in understanding another."

Value of Repetition.—"The former lessons being repeated every day previously to entering on the subsequent one, the lessons will gradually lengthen as the scholars advance, and their minds are more and more opened, for the reception of progressive instruction, and as the memory improves by exercise. It is easy to see how much a very small portion learnt perfectly by heart, every morning and evening, will amount to, before the scholar is yet fully instructed in the art of reading, with the acquisition of which, however, their *viva-voce* repetitions off book, must not materially interfere; for it is by his daily lessons in reading, that religious knowledge is most readily and effectually attained; therefore the utmost pains must be taken from the beginning, to forward him in this art, by which he may the sooner be qualified to read and learn for himself, on book, the *memoriter* lessons, as well in exercises at school, as in tasks at home, and with better understanding, and consequently with greater profit, than from the mouth of another. Nor are the primary rehearsals, from the mouth of the teacher, idle in this respect; they serve to form a just enunciation, and a distinct manner in reading, as well as in repeating. Here, as every where, the main point to be attended to is, that every lesson, however short, may be perfectly learned, and the preceding portions repeated before entering on the next."

Registration..—Of the Registers named in the Manual we shall notice but one. "The Paidometer shews each child's monthly progress, from his admission into the school, to leaving it, in twelve triple columns, in which, on the last day of every month, are entered the book, page, and stage of the course at which the scholar is arrived in his reading, ciphering, and religious rehearsals.

A single line on a folio sheet, comprehends the progress of each child for a year. The Paidometer will form a record of facts of no less value in the intellectual, than the barometer, thermometer, &c., in the physical world.

"Its importance needs no illustrations; it furnishes immediate and indelible information, relative to the progress of every child, throughout his literary career, and is eminently fitted to stimulate exertion on the part of the master, and to enable the visitors to check, correct, and regulate, the progress of the scholars. The scholastic world will be put in possession of a mass of materials, the basis of a new science; and in course of time, a criterion will be obtained, by which visitors may judge of the comparative progress of their school, with that of other schools, and an average standard established, by which the master may ascertain his own success, by the success of others, and be stimulated to exertion. But the strictest provision must be made, that no book be passed without perfect instruction. The visitors, therefore, should ascertain, by actual examination, whether the report be faithfully made, the entry literally correct, and the scholar intimately acquainted with all that goes before the stages, at which he is stated to have arrived."

It would be easy to multiply passages to show that Dr. Bell is deprived of his fair meed of praise, when he is spoken of as a mere system maker; he was more, and although the circumstances of his day hindered his schools from attaining great excellence, it is evident from his writing that he had, on most educational points, a clear and enlightened conception, and knew as well as the majority of educationists in the present day, what was essential to a good school, and how "perfect instruction" could be best secured.

THOUGHTS ON THE DUTIES OF A SCHOOLMASTER.

(Continued from July Number.)

Such a course of instruction presents many advantages. We can notice but a few.

1. As most of the children will have to follow the occupations of the district in which they are brought up, this knowledge will be continually useful to them. Instead of blindly going through their toil as mere machines, they will bring *all* their powers to bear on the task, (not as now, their animal powers only), and who will say, but, that from such a class of British workmen may arise many a Watt, a Brindley, a Stevenson, or a Johnstone, who may be destined by Providence to advance British Agriculture, Manufacturers, or Commerce, and thus become useful to our country, and the world.

2. Again, this method of Education will afford a practical and unansw

reply to the arguments of many of the opponents of Education, and a something that will lead many to take an interest in it, who now are indifferent, to it, because they do not see an immediate benefit.

3. But a result more to our present point remains. It will do much towards securing the interest and co-operation of the parents, and thus tend to lengthen the period of school life. The children tell their parents what they have learnt, and as it is connected with that in which they are themselves constantly engaged, they feel interested. They see that the children are learning something which bears upon their future work; they see its advantages, and hence become willing to exercise a little self-denial, to enable their children to reap such advantages.

4. And lastly, such lessons will interest the Children. They too will see something of their use; they will be learning things of which at home they learnt a little, and becoming more and more intimate with familiar objects. They see a thing done, and are pleased to be able to tell why it is done, and what will be done next, and the effect it will produce. And still further to interest them, the speaker should get them to bring specimens of the various earths, minerals, or manufactured goods in various stages; and thus accomplish the double object of giving them pleasant and instructive employment, and of obtaining a museum from which to illustrate his lessons.

And here it may be remarked, that the Teacher should aim to make school life a *happy* period. Though he ought to guard against making it entirely an easy and sunny path, removing all difficulties, and so not training the children to the task of surmounting the difficulties and trials of life, still it should be essentially a happy period. The child should be made to take a real interest in the school, and in his own advancement, and to value knowledge. And if that be done, a present and future benefit will accrue from it. (1) A present benefit, for, liking school, the child will overrule the little excuses which too often keep him away, and thus be more regular, and probably increase the period of his school life. (2) And then, as to the future benefit, having acquired a zest for learning, and knowing the value of Education, they will, we hope, pursue their studies in after life; and, at least when they become parents, we have a right to expect that they will be anxious to secure the blessings of Education for their children, and that thus the next generation will reap the full benefit of the present movement.

But we have yet to consider the most serious obstacle of all: the want of a thorough knowledge of the principles of education. This is the most fatal evil, not only because it acts immediately upon our schools, but also because it is, to a great extent, the cause, or the support of the obstacles we have before noticed. For want of this knowledge it is that, instead of leading on the loving and confiding heart of childhood by pleasant ways, skilfully developing at their proper seasons, its latent faculties, ruling and guiding it by love, gentleness, and hope, and securing its sympathy on the side of ourselves and our instruction, we mar our own work, pull down what we seek to build up, and too often ignorantly cherish feelings, thoughts, and inclinations, which lead to circumstances that give us pain and annoyance. Wanting this knowledge, it is too often true of us, as one of our poets remarks, that

> "We over rule and over teach,
> We curb, and we confine,
> And set the heart to school too soon
> To learn our narrow line."

It is through this that we waste our time in attempting impossibilities, and neglect those things which ought to receive paramount attention, and hence fail in producing such practical results, as would rightly influence the parent, and the opponents of education. This then is the radical evil; and by removing it we are doing much to remedy the others. The plans we have been before speaking of are highly useful, as removing (so to speak) the *props and buttresses* of that mighty wall which impedes our progress; but by remedying *this* evil we undermine and destroy the *foundation.* Hence it becomes the most important duty of the Schoolmaster to study and improve the *science* of education. This is his task. How is he to perform it?

Notwithstanding the attention that has been recently directed to the subject, the great body of Teachers have, to a great extent, neglected the study of *Education as a science.* Like the students of the old barren and stationary system of philosophy pursued before the time of Bacon, they have too much neglected facts, and attended almost exclusively to theories; having discussed certain questions (important in themselves it is true,) in such a manner as that no definite conclusions could be arrived at, so that Educational science has been, as far as they are concerned, lying unstudied and unimproved.

Such was, 300 years ago, the condition of philosophy; but now how different. It has become, through the introduction and carrying out of a different plan of studying, a most useful and interesting science. And how has this change been brought about? It was when her students left their gilded halls and gaudy platforms, and exchanged the splendid oratory and the applause of listening debaters, for the quiet and arduous study of nature; when theories, instead of being concocted at random, and made matters of continual discussion, were proposed only after they had been carefully induced from facts, discovered by accurate and repeated experiments; when principles were drawn from well established facts; then, it was, that philosophy became a useful and interesting science. The discovery of truths by experiment was then the first step in obtainimg principles and general laws, and thus it must be in education. Experience makes a man a better teacher, and if we would study and improve the science of education, each one must use his own experience and that of others. Principles must be obtained by comparing facts, such as different methods and their results, taking into consideration all the circumstances which bear upon the case. And thus every educator should study education, and become at the same time, a student of and discoverer in the science. Difficult though the task is, let each do his best. All teachers may do something towards the improvement of the science of education. We have seen that the first instrument is simple records of facts, and hence the use of such works as that called the "Handbook to the Borough Road Schools," which was reviewed in the "Papers" of April, in which it is stated that, "the demand is for practical works, expositions of what really *is* done in a particular school, with a given class of children," and that model and practising schools should publish such accounts. Such works supply materials for the study of organization, but we want in addition to these, accounts of individual cases, connected with mental and moral education. Such cases occur almost daily in the experience of every teacher, so that *every* teacher can collect results for himself. And these he should record. This is an easy task. Let him keep a diary, and record in it the circumstances which occur in his school. In this he should give simple *facts*, either without, or entirely distinct from *opinions;* he should record with the most minute and rigid exactness all the circumstances of the case, and anything which in any way influenced it, the treatment it received, and the result of such treatment.

If each master did this, what a valuable storehouse of facts would he soon possess—facts which would be to him what the records of experiments are to the philosopher; and what a noble collection would soon be obtained by all the schoolmasters of Britain!

And from these facts we obtain, by contrast and comparison, the general principles and laws which constitute the science This comparison, and the discovery of principles from these ascertained results, must be accomplished partly by the master individually. The work is legitimately his; but many others among his friends and helpers will afford him important assistance. And then to carry on the work we have fitting instruments in the Schoolmasters' Associations which are rising on every side. These are the bodies which could and should carry on this part of the work. To these associations each member should bring his quota of information. Here each should add his brother's experience to his own; here they can contrast and compare different kinds of treatment, and their results; here at their several meetings discuss, and afterwards test, well-conceived hypotheses for accounting for these results; and then the United Associations (of whom we had lately heard so much,) should take up, and carry on the work. Here then is a well adapted machinery, almost daily increasing and improving. We want but facts (and a sense of the importance of the subject,) to set the whole in motion. Let each one therefore supply the want. Teachers! Will you go on making experiments, (as every one of you is daily doing), and never think of, or derive any benefit from the result? Nay, rather observe results, and use them aright. Become *practical*, rather than theoretical students in Education. Commence at once. Let all do a little. Who shall despise the day of small things? Heed not the difficulty. Victory is sure.

We have seen a little of the Teacher's work, what he has to do, what trials he has to grapple with, and obstacles to surmount. Let them not discourage us. Education must advance. We know that God did not give powers and capabilities that they should be hidden and undeveloped; the children of our working classes were not created with hidden mental faculties, and spiritual powers, that they might be undeveloped and useless; and hence, as Education is the instrument by which they are to be developed, we are justified in concluding that it will be blessed, and made to flourish. Let us then labour on in faith and hope, undaunted by the difficulties which beset us on every side. Nay more, we will rejoice in these difficulties, because they give us the honour of victory, and they enhance the glory of our certain conquest. On then we will labour, despite the slights of worldly men, the mockery of the careless, the contempt of the ignorant, or the scorn of the envious, and we shall have a reward. Yes, amidst all his difficulties the Educator has real, substantial, and ennobling pleasures, which far more than repay his toil and care.

My Fellow Labourers! Let men see that you are in earnest in forwarding the improvement so much needed. Let us show by our words and actions that we are aware of the responsibilities resting upon us as Teachers; and are both able and anxious to carry on judiciously and successfully the work we have taken in hand. Let us endeavour to produce such works as shall show that the progress of Education is beneficial to the interests, temporal and eternal, of the human race, and by the discharge of our duties to the Poor, to the State, and to Religion shew, that those interests have not been in vain committed to our hands.

D.

Notes of Lessons.

MODEL LESSONS, AS GIVEN IN THE NEILSON EDUCATIONAL INSTITUTION, PAISLEY.

The following outlines are intended to indicate merely the kind of instruction given daily in the Institution, without conveying an idea of the methods of intellectual culture pursued by questions, ellipses, and illustrations.

BIBLE LESSON.

"A word fitly spoken is like apples of gold in pictures of silver."—Proverbs xxv. 11.

In the Bible the word *apple* seems to be synonymous with the word *fruit*, so that pears, oranges, and lemons *might* be called apples. The orange and lemon are of a golden colour; and from this fact, the first—the orange—gets its name. The orange, lemon, and citron are similar in taste, and make up what is called a family of fruits. These three might be called *apples of gold*. The citron, which is of a rich yellow colour, is supposed to be the apple of gold here meant.

The Chinese ornament their rooms, not generally with a vase and flowers, as we do, but with a porcelain dish, beautifully painted, and filled with their apples of gold. The fragrance of the citron is delicious, and is commonly carried by Eastern ladies in their hand, and used as we do a scent-bottle. Besides its beauty and fragrance, it is also refreshing when eaten.

Generally in cold climates, leaves, flowers, and fruit come on the trees in succession. But in warm countries it is different; and the trees may be seen laden at once with leaves, flowers, and fruit. Such is the case with the citron. The shining green foliage is concealed beneath the covering of the *silver-like blossoms* spread over the tree, and here and there are the *citrons*—the "*apples of gold* in *pictures of silver.*"

Solomon says, words fitly spoken resemble these. Word here is equivalent to a sentence. All must be said at the *right* time. Such then are words of reproof to the careless—of warning to the ungodly—of comfort to the mourner—of love to the neglected and ill-treated—of encouragement to the well-doer. Discretion or discreet behaviour is "the pictures of silver;" and our words, seasonably spoken, are the "apples of gold."

READING LESSON.

"High on a throne of royal state, which far
Outshone the wealth of Ormus and of Ind,
Or where the gorgeous East with richest hand
Showers on her kings barbaric pearl and gold,
Satan exalted sat."—MILTON.

ANALYSIS.

1. Paraphrase the passage.
2. Show how our pentameters are called hexameters. Define the Trochee, Iambus, Anapaest, and Dactyle, with examples.
3. Connect royal with *Roi*, and regal with *rex*.

4. Ormus alludes to the Pearls of the Persian Gulf; *Ind* suggests the Diamonds of Golconda.
5. Explain the Eastern custom of showering gold dust on a monarch's head at his coronation, and give the quotation from Virgil, Aen. II. 504, "Barbaricô postes auro, spoliisque superbi."
6. Explain the Personification in 3d and 4th lines; and give the history of *persona*.
7. Connect Barbaric, Barbary, Berber, Barb, Barbed, and Barber etymologically. Illustrate literal and conventional meanings of the word *barbaric*.
8. Give the theory of the formation of pearls, and trace the word pearl from spherula. Give examples of cognates interchanging like ph and p. Give the root of the word *peril*.
9. Show what relation gold bears to gowd, gowden, gouldie, gowan, gowds-pink, yellow, and yolk.
10. Derive *riches* from *richesse*, and speak of other Equivocal nouns. *Alme* from *aelmesse*, *means* from *moyen*, *pains* from *peine*.

SECULAR LESSON.

(Showing how animals are treated individually.)

THE FROG.

The frog deposits, in the water, small eggs without hard shells; if touched they stick to the finger like soft glue or treacle, and are hence said to be *adhesive* or *glutinous*. Being heavier than water, they sink; begin to rot or putrify, as do animal substances placed in any damp situation; and the putrefaction lessening their weight, they rise, stick together or adhere, and are hatched by the heat of the sun. If one egg be cut away from the rest with a little bit of glass, and held up to the light, there will be seen two parts like the white and yolk of an egg, the black central piece being the young frog. It daily increases in size, and at last comes out of the pulpy mass a strange little creature with a long tail; and we call it a *tadpole*, which means *the young* of the *toe-ed* animal.

It uses its tail, as a man does the oar, when sculling a boat; and thus it moves about, feeding on animal and vegetable substances floating on the water. But as, some day, it is to walk out on the land, returning only now and then to the water, four small feet begin to appear; which daily enlarge with the growth of its body. Also, when in the water, it breathes by means of gills, which resemble the branches of some pretty little plant; but, while the four legs are being developed, there grows within it a set of lungs which it is to use when ashore.

After it reaches its full growth it waddles to the side of the pond or ditch in which the egg was deposited; puts its fore feet on the land, shakes off its gills into the water, and begins to breathe with its lungs; then putting its two hind legs on the land, the tail, which had been decreasing for several days past, is also shaken off and left floating in the water. It then lives partly on the land, and partly in the water, and therefore we call it *amphibious;* so, to fit it for returning to the water, its toes are webbed like those of the duck. It is not true that the skin of the frog gives out a kind of poison, and therefore children should never hurt this most interesting, though often despised animal. Trace the wisdom of God in the structure, and His goodness in the adaptation of the animal to its changing circumstances.

NOTICES OF BOOKS.

The Philosophy of Education, or the Principles and Practice of Teaching. By Thomas Tate.—Longman and Co.—A reprint of a series of papers which appeared in the *Educational Expositor.* For the benefit of those who have not seen the papers in their original form we may state, that the entire series is thrown into five sections, viz.: On Method applied to Education; the Intellectual and Moral Faculties considered in relation to Teaching; on Systems and Methods, as applicable to the various branches of Elementary Education; and on School Organization and Discipline. As this volume is simply a reprint of matter pretty generally known, we have only further to remark, that though the part of the work devoted to Practical Education is not equal to that on Principles, there is that in all Mr. Tate's works, which will secure a favourable reception from Elementary Teachers.

Writing Models. Nos. 1. *to* 11. By M. Wilson.—Collins.—Sets of Copy Slips, stitched in separate books, and adapted for use mostly in Schools, where the children provide the slips at their own charge. Numbers 1 and 2 contain the elemental forms of letters, according to the method of Mulhauser, with part of each line in outline only; 3 and 4 contain text hand, with intermediate lines, set out with exactness to determine the proper length of letters passing beyond the ordinary boundaries; 5 to 7, large and small hands; 8, the inserted slope; 6, the angular hand; 10, page pieces; 11, ornamental print of various kinds. The models are generally correct in form, graceful in style, and well adapted for use in superior schools.

Text Book of Arithmetic. By M. Wilson.—Griffin and Co.—An arithmetic of the ordinary kind, full of examples, and "Rules which are designed to be committed to memory." The only other novel feature is a brief exposition of the Decimal Coinage, with exercises following the plan approved of in the Parliamentary Report on the Decimal Coinage; and a few examples of the mode of keeping accounts, suggested in that Report.

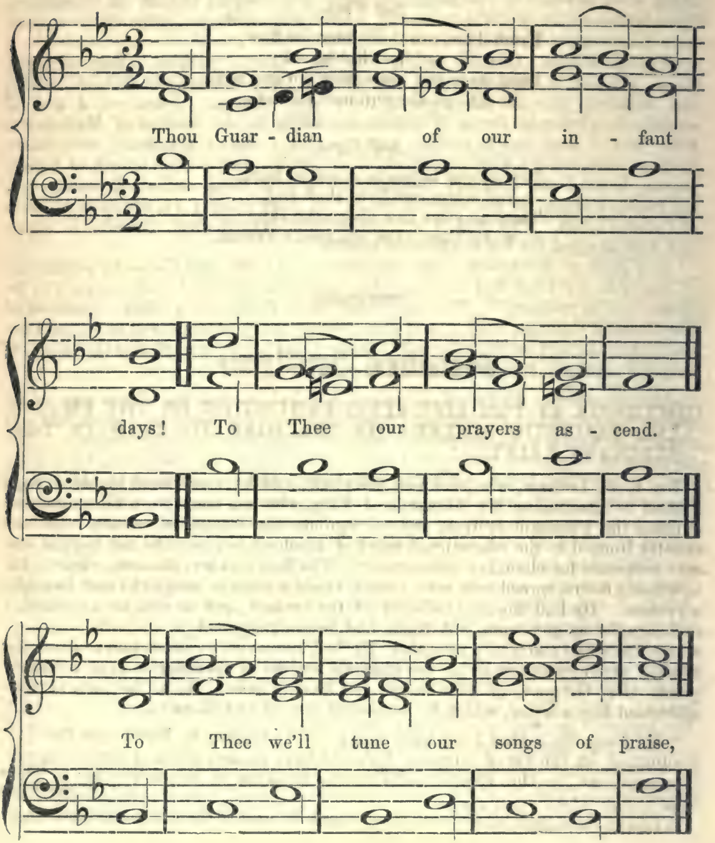
Juvenile Atlas. Heywood, Manchester.—A shilling Atlas, of the size of an ordinary copy-book, containing twenty maps. The idea is a good one—to supply, at a very moderate price, a series of Maps for elementary schools. The maps are of fair construction, and not the less fitted for school use, for having fewer names than usual. We think, however, that the selection is not always the best that might have been made. A boy wants a map that shall contain all those names likely to turn up in a course of ordinary school reading; such as names of historical note, those of importance in connexion with commercial and manufacturing industry, and a few important for other reasons. Whenever these are wanting, the map is to a certain extent useless. Though the "Juvenile Atlas" is not perfect, it is still a very creditable production for so small a charge, and deserves the patronage of elementary schools.

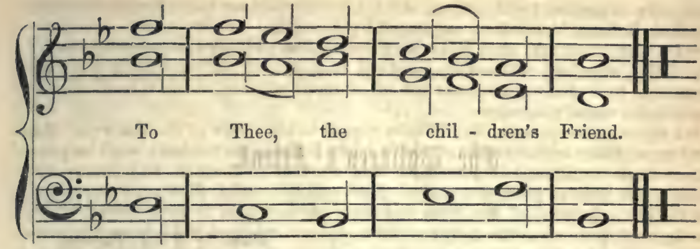
A Series of Physical Maps. Heywood, Manchester.—These maps are of the same size as those in the "Juvenile Atlas," but sold separately, at a merely nominal charge. The series includes maps on Botany, Rain, Zoology, Hydrography, Man, &c. In those schools where Physical Geography is taught, teachers will be greatly aided by getting the children to procure for themselves, either a part or the whole of this series.

Elementary Guide to the Etymology of the English Language. Bean, London.—A small but fair compendium of the Prefixes, Affixes, and Roots from the Saxon, Latin, and Greek. A convenient little hand-book for scholars in elementary schools.

The Children's Friend.

Music by W. E. Parsons.


Thou Guar - dian of our in - fant
days! To Thee our prayers as - cend.
To Thee we'll tune our songs of praise,



2nd Verse.

From Thee our daily mercies flow,
Our life and health descend,
Lord, save our souls from sin and woe,
Be Thou—the children's Friend.

3rd Verse.

Let all our hopes be fixed on high,
And when our lives shall end,
Then may we live above the sky,
With Thee—the children's Friend.

Educational Intelligence.

DISCUSSION AT THE EDUCATION EXHIBITION, ON THE PHONIC AND PHONETIC SYSTEMS OF TEACHING TO READ IN THE ORDINARY PRINT.

Dr. R. G. Latham, who occupied the chair, said he considered his duty was limited to introducing Mr. Alexander J. Ellis, who had come from Edinburgh to explain the Phonetic system, and to regulate the discussion, which must be strictly limited to the educational point of teaching to read, and not branch out into proposals for changing orthography. The best test was the numerical:—In how many hours, spread over what period, could a pupil be taught to read by such a system. He had thought as badly of the present, and as well of a phonetic, orthography as any man, but there had been exaggerration in both opinions, which facts had materially modified. He had, however, no hesitation in avowing himself strongly in favour of the phonetic system of teaching to read ordinary print. Dr. Gregory, of Edinburgh, not having been able to be present had addressed him a letter, which he proceeded to read as follows:—

"My Dear Sir,—Had I not been compelled to remain in Edinburgh for our graduation on the 1st of August, I should have made a point of attending the Conversatione on the Phonic and Phonetic Systems at which you are to preside.

"I have for a good many years taken much interest in the subject of phonetics, especially as applied to education, and I have the honour to be President of the Reading Reform Association, suggested by Mr. Ellis.

"I trust, therefore, that I can be permitted to add my testimony to that of Mr. Ellis, who is to address the meeting, in favour of the very great practical advantage to be derived from the use of phonetic reading, as an introduction to reading the usual character.

"I agree entirely with Mr. Ellis in regard to his views of the theory of this very remarkable and unexpected result; but I would particularly wish to point out to those interested in education and desirous to diminish the labour and shorten the time at present required for learning to read, that even supposing the theoretical views of Mr. Ellis and other phoneticians to be disputed, there can be no dispute as to the fact, that all teachers, both here and in America, who have employed phonetics as a step to ordinary reading, are unanimous in ascribing to it the important effect of enabling the pupil to attain in very much shorter time than is usually required, a much greater degree of accuracy in reading, pronunciation, and spelling; with this additional advantage, that the pupil, from the beginning, feels that he is advancing by his own efforts, and consequently learns with pleasure. This is certainly a contrast to what used to be the case, and it is not going too far to say, that in consequence of the peculiarity just noticed, both the intellectual and moral faculties of the pupil are directly and materially benefitted.

"Having seen and examined the results of various experiments in the method of teaching to read recommended by Mr. Ellis, I have acquired a firm conviction that it is a great and thoroughly practical improvement, and worthy of the best attention of all teachers.

"Believe me, yours faithfully,
WILLIAM GREGORY."

Mr Alexander J. Ellis observed that if the Phonetic system he was going to explain, had had for its object to effect a change in our spelling, it could not have come on for discussion in this place, and that the term Reading Reform had been invented to distinguish it accurately from any reform in spelling. Mr. Symons had on Saturday stated, as a result of the last educational census, that children remain in school on an average only two years, the time which it now takes them to learn to read. Indeed the Rev. Canon Mosely, as an Inspector of Schools, had calculated from his own data, that one-half of those who frequent schools for the labouring classes, *leave* them unable to read. The consequence was that no proper education could be given the children. Parents would not leave their children at school, and to solve the great problem of inducing them to do so, we must educate their children better in the same time. This we can effect if we can materially reduce the time spent over reading. This is what the phonetic system professes to do, requiring only one year at half-an-hour daily, instead of two years. It might never have occurred to any one not previously possessed with the idea (mistaken if you choose so to call it) of changing the spelling, to throw aside the common alphabet and use a totally different one, at first, to enable a child to read the present spelling. Most of the improved systems of spelling attempted to reduce our orthography to some phonetic order by diœritical marks, &c., but the strictly phonetic system was separated from all these by the great gulph of a totally new alphabet. It taught the children at first as if no other alphabet existed. The alphabet chosen consisted of 40 letters, and as the old had only 26, this might seem a complication. But each of the 40 had only one sound, and the 26 were really more nearly 200, when increased by the diagraphs which constituted true letters, and were then very valuable in signification. Thus, not to refer to *ough*, observe the difference of sounds represented by *ear* in *ear*, *bear*, *beard*, *heard*, *heart*. These changes must be learned and understood by the pupil by means of a classification, but in the ordinary phonic method this was attempted to be done for the pupil, who remained *passive*; on the phonetic plan the pupil was led to perform it *actively* for himself. The 40 letters represented the elements assigned by Dr. Latham in his *English language*, and by Walker in his *Dictionary*, the phonetic analysis not pretending to scientific refinement. Mr. Ellis then repeated the sounds, and illustrated their combinations by means of a chart The children were taught a single sound first as *ee*, and then another as *s*, and then combined them into groups as *see*, *ees*, so that they felt themselves advancing from the first, and they never had to unlearn or relearn what they once acquired. In about 6 weeks, at 2½ hours a week, the pupil generally masters the *primer* and can read *any* phonetic word slowly but surely. He next has to be brought to read with *fluency*. This is a work of time, differing greatly in different pupils. But it is of paramount importance to the success of the system, that this stage should be reached. Mr. Ellis adduced examples in his own family, where chidren of the same age passed rapidly or not to reading in ordinary print according as this point was or was not reached. It might take 8 months to finish this stage, and then in a few weeks the transition to ordinary print was made so rapidly and easily as to be almost incredible in some cases. This result was totally unexpected, nor was its philosophy at first understood. It seems that as ordinary readers will read a phonetic book almost without instruction, so fluent phonetic readers grasping words as a whole, knowing the value of the greater part of the ordinary letters, insensibly co-ordinate the varieties of spelling reducing them to their familiar standard, and thus for themselves actively and intelligently perform the requisite classification. This process is therefore exceedingly valuable for its general effect on the intellect. But it was at first feared that the children so taught would not learn to spell well in the ordinary way. Here practice, again, outrun theory. The best phonetic readers were found the best ordinary spellers. The reason was, first, that they had, in learning to read, learned to classify spelling for themselves, and secondly that, being acquainted with a true phonetic alphabet, they never thought of using the ordinary alphabet phonetically. To satisfy the chairman's desire for numerical results Mr. Ellis then adduced some experiments—one by Mr. Williams, in Edinburgh, in which a phonetic class outrun a class taught on ordinary plans, though starting a year later; and one by Miss Baxter, of Boston, where a class being divided, the phonetic division far outstripped the other. The details of these experiments were quoted from the official reports of the teachers. The reports of the Legislative Committee of Massachusetts in 1852, recommending the general adoption of the phonetic system for teaching ordinary reading and spelling, were also read. The Reading Reform Association hoped to establish an experimental class for London teachers during this autumn. But no great instruction was required to teach the teacher, for in almost all the experiments that had been made the teacher had acquired sufficient knowledge from the publications of the association; and in Mr. Williams's experiment the teachers were monitors, children of eleven or twelve years of age, who had acquired the power of teaching in a very few lessons. If, indeed, the best teachers in a school would teach reading, the time would be vastly reduced; but what the association hoped for was that the parents should themselves become teachers, and by sending the children to school *able* to read, render available those means of education which this Exhibition now proved to exist so abundantly.

Major Beniowski mentioned his experience of teaching Poles to read ordinary print by means of a phonetic alphabet.

Mr. Jelinger Symons felt some doubts as to the use of two alphabets in teaching to read, especially on children of low intellect. He advocated the phonic system, with which teachers had imformed him they could teach more rapidly than before. He thought it exercised the child's reason more.

Mr. John S. Reynolds, of the Home and Colonial School Society, stated that the phonic system had been used and discontinued there, but by their modification of it children were taught to read well in from two to two years and a half.

Dr. Wilson, of Chelsea, had been opposed to the phonetic system before entering the room, but had found reason to alter his opinion. Perhaps learning two ways of representing the language might be of similar advantage to learning two languages, whereby the pupil became better acquainted with both.

Mr. E. Carleton Tufnel, although not acquainted with the phonetic plan, was, from what he had heard, impressed with its advantage. He was acquainted with the phonic system, and knew a case where, on its having been discontinued, on account of a change of masters, the pupils had privately kept it for themselves; and he thought respect should be paid to the opinion children thus clearly expressed.

Mr. Gladstone detailed a successful experiment he had made some years ago in teaching pupils at a ragged school at Clapham to read in the ordinary print by means of the phonetic system.

Mr. Dunning explained the system pursued at the Home and Colonial Schools. 1. The children were taught to observe the shape of letters. 2. They learned their names. 3. Their usual powers. 4. Their combinations with short sounds. 5. Their long value with double consonants. 6. The anomalous sounds and accurate reading. 7. Intelligent reading. 8. Reading with expression.

Mr. W. A. Shields thought sufficient attention had not been paid to what schoolmasters were doing, without reference to any particular system.

Several other teachers and gentlemen addressed the meeting, and Mr. Reynolds offered to have an experimental class, to try the phonetic system, at the Home and Colonial Schools.

ON SCHOOL DISCIPLINE, AND ITS EFFECTS ON THE BEHAVIOUR OF CHILDREN. BY THE REV. J. P. NORRIS, H.M. INSPECTOR OF SCHOOLS, AND FELLOW OF TRINITY COLLEGE, CAMBRIDGE.

The lecturer explained the purpose of his address, by stating that he had been invited to give it in consequence of a letter which he had addressed to the Council of the Society of Arts, expressing his apprehension of one possible danger attending this exhibition—the danger of an undue prominence being here given to the *material* as compared with the *moral* elements of a school's efficiency—the danger of people going away with the notion that a school's excellence depended more upon what was here so largely represented—the form of the building, the shape of the desks, the apparatus—than what alone gave value to all these appliances—the discipline, the temper of the government; the *moral* influences, in short, that were brought to bear upon the children. He was desirous that in this lecture-room an emphatic protest should be entered against any such mistaken inference from the Exhibition upstairs.

Nor was the protest needed here only. In the country at large there was a continual need of asserting and vindicating the paramount importance of this moral side of education.

Among those who addressed the public, whether in pamphlets, or in speeches, or in sermons, there was a constant tendency to take that view of education which the public could easily recognise. The only *means* of education of which the public were cognisant were such as could be purchased by money; the only *results* that the public could readily appreciate were such as could be expressed in statistics.

The lecturer's earnest wish was that his audience should go away convinced that when they had built the most perfect school, furnished it with all that was most approved, shown the most flattering results in the statistics of instruction, they might, after all, have done next to nothing towards really educating the children.

In order to prove this thesis, he drew a detailed picture of two schools, supposed to be equally complete in all their material appliances, and equally successful in their statistical results, with an equal amount of approved religious instruction in each, but differing in this—that the moral influences in the one school were throughout the day healthy and good, and in the other were unsound and little attended to. In this parallel (which formed the principal part of the lecture) he endeavoured to point out the effects as severally exhibited in the behaviour of the children; in those many traits of discipline which might escape any but the sensitive eye of an inspector or school-teacher. And having done this, he appealed to his audience to say whether they could have any sort of doubt about the comparative value of the two schools.

The public might be quite at a loss to understand why the report on one was so favourable, and that on the other so unfavourable; why the one school was turning out such well-behaved young people, good sons, good daughters, good servants, good apprentices, while the other was comparatively failing in these all-important results. Perhaps the managers of the latter school might feel aggrieved that the discipline should be characterised as bad, when the drill was so exact and soldierlike. But whta Selden, in his "Table Talk," said of a higher subject was true of *drill* without true *discipline*, "He that has not religion to govern his morality, is not a drachm better than my mastiff-dog. So long as you stroke him, and please him, and do not pinch him, he will play with you as finely as may be; he is a very moral mastiff; but if you hurt him, he will fly in your face and tear out your throat." Your smart school, dragooned into almost military order, was admirable so long as the master's eye was upon it, and you merely glanced along the files; but if you took the children one by one, and looked into their countenances, or overheard them at play, or followed them to their homes, you would become painfully aware how artificial had been that drill, how far from habitual that good behaviour. Nor would the intellectual results of such a school be found to be really good. It would be found that what had been attained was rather a well-stored memory, and expertness in making use of it, than any power of reflection or of forming a right judgment, or good taste, or, in one word, thoughtfulness.

And it might be doubted whether these results, this kind of knowledge, might not, after all prove useless. It might be doubted whether memory without judgment, skill without taste, cleverness without thoughtfulness, were a sort intellectual training that would do much to raise our youth.

Much more might it be doubted, whether sharpness of intellect without discipline of character; aptness in choosing means, without wisdom in choosing ends; knowledge of good and evil, without the love of the one and hatred of the other—would prove a blessing to our children or to the nation.

We might do well to remember that he who of all others was least open to the charge of want of faith in education, who might rather be called its best vindicator and assertor, the great advancer of learning—Lord Bacon, had expressed the same doubt. Speaking of mere knowledge, he said that, "Without the corrective thereof, it had in it some nature of venom or malignity, and some of that venom's effects, which is ventosity or swelling;" and he added, "This corrective spice, the mixture whereof maketh knowledge so sovereign, is *charity*."

"This it is," the lecturer concluded, "this charity, as Bacon calls it,—using the term in its largest, most apostolic sense—this charity it is which should be to our schools what the spirit is to the body, animating, informing it, persuading the heart while the lesson-book instructs the head. I have called it the moral element of a school's efficiency. The terms are wholly inadequate to convey my meaning. It is something which escapes definition, as its results elude statistical expression. It constitutes the spiritual life of a school, the gracefulness of its daily action. It is more than certificates, more than training, more than money can secure in a teacher; it is the unbought service of a good man's heart, which is indeed beyond all praise, beyond all price. It must therefore be felt, it cannot be expressed. The purpose of this lecture has been to make you feel it as I feel it. Once felt—I am very sure you will go away convinced of its paramount importance, if education is indeed to be, what I trust in England it ever may be, the training of all that goes to make up a man—hand, head, and heart—body, mind, and spirit—for the service of man's Maker."

CIRCULAR TO TRAINING SCHOOLS.

Committee of Council on Education,
Council Office, Whitehall, 19th July, 1854.

SIR,—Adverting to the Minute of 28 June, 1854, I am directed to reply by a general circular to the following questions which have been asked, viz:—

1. Can a first class certificate be obtained at the end of the first year's residence?
2. How are Teachers already in charge of Schools to be examined.

1. The reply to the first question is contained in the 11th Section of the Minute of 20 August, 1853, whereby the examination of the Student is distinguished from the Certificate of the Teacher.

It would probably tend to make the intention of the Committee of Council plainer, if the words "Certificate" and "certificated" were altogether banished from the College Examinations.

The Students of each year will form a separate class for examination; and each class will be grouped in three divisions of proficiency; according to which divisions, and to the year of of the class, Grants will be made to the Colleges pursuant to the Minute of 28 June, 1854. Thus, all the Students who have resided one year, will be examined and classed, as one body; and, in like manner, those who have resided two years, and three years, respectively.

Passing now from the college, and regarding the Students as they enter upon the charge of schools, the lowest certificate will answer to a residence of one year, and the middle and upper certificates will answer to a residence of two or more years, supposing the proper examinations to have been passed at the end of each of those periods.

Before, however, any certificate whatever is issued, two probationery years must be passed in a school under inspection, and, at the end of the second of those years, the certificate corresponding to the duration of the Candidates'

Normal Training, and to the division attained by him therein, will be issued *e. g.* the candidate who was classed as a Student in the first division, at the end of his first year's residence, and who then left the college, will, subject to the probation, be certificated for the next five years in the first division of the lower degree; and similarly the candidate who was classed as a student in the second division at the end of his second or third year's residence, will be certificated in the second division either of the middle or upper degree, &c.

In deciding between the middle and upper degree of merit for a teacher's first certificate, my Lords will be guided by the results of the college examination, by the age of the teacher, and by the Inspector's two reports, conjointly. My Lords will require proof of extraordinary merit, before they rate a teacher in the upper degree, on the occasion of issuing his first certificate. My Lords do not wish to preclude themselves from the power of making such an exception; but, as a rule, they intend henceforth to reserve the upper degree for those teachers, who shall have given sustained proof of practical efficiency corresponding to high attainments.

It may be convenient at this point to answer two other inquiries which have been made, viz.—

(a) What will be the position of students who fail in the first year's examination? and

(b) Will the college lose its grant for the second year on a student who is in the second or third division of that year, after having been in the first division of the preceding year?

In reply I am to state, *(a)* that a student who fails at the end of the first year must go in for that same year's examination in the following December, and must pass it, before he can be allowed to pass for the second year's examination,—from passing which, however, he will not be debarred by his previous failure.

The papers of the Student who has failed to pass his examination at the end of the first year, will not be looked over for the second year, until those worked by him for the first year are found to be satisfactory.

(b) The second year being wholly distinguished from the first, the grants for Students passing in that year, will depend for their amount upon the divisions in which the Students may be placed for that year, irrespectively of the first year. In like manner, Students who are in a lower division at the end of the second year than that which they attained at the end of the first, will not thereby, forfeit their claims (so far as they depend upon the examination) to the second degree of certificate. Students, however, who fail altogether to pass at the end of the second year, will (in pursuance of the established rule) forfeit any claim arising from the examination passed at the end of the first year. They must be examined again for the end of the second year on the next occasion.

2. Whilst the preceding regulations have reference to the examination of Students preparing for the office of teacher, the following are for the examination of teachers already in charge of schools. These may obtain, by application at the Council Office, a printed syllabus of the prescribed course of examinations, and, at the beginning of each year, they will be able to ascertain how the variable subjects in it have been fixed.

Teachers who have completed their 35th year, may choose whether they will attend the first or the second year's examination.

Teachers who have not completed their 35th year, must pass for the first year, and will not be certificated thereupon higher than the third degree of merit. In order to exceed that rating, they must pass for the second year on a subsequent occasion.

The residence of "one year and a half" mentioned at the end of the 11th section in the Minute of 20th of August, 1853, depends for effect upon the following (12th) section, and is therefore (with safety to existing claims) repealed with that section.

I have the honour to be, Sir,
Your obedient servant,
R. R. W. LINGEN.

PRESENTATION OF TESTIMONIAL.

At the close of the Examination of the Children attending Holme National School, a beautiful Self-Explanatory Bible, in purple morocco, was presented by the Rev. Charles Yate, vicar, to Mr. James Mortimer, "In testimony of the *ability* and *zeal* with which he has conducted Holme National School, for a period of Six Years."

Correspondence.

SIR,—As your valuable Papers are really intended for the benefit of the Schoolmaster, and being myself one of their number, I venture humbly to ask your assistance to solve an interesting problem, which I have found too difficult for me to get through.

To understand it, you must be informed of the circumstances I am placed in. The field of my labour is a rural district of Wales, where the English language is not at all spoken nor understood, except by some very few. The number of pupils under my charge is upwards of 120: about one-third of this number consists of young children, between the age of 4 and 6—mere infants.

Now, what has hitherto puzzled all my skill, and baffled all my exertion, is to find some *effectual* method of bringing *these little ones* on along the road of learning; and to do that without infringing upon the *interests* of the elder children.

Certainly, I have found it almost impossible to get any sort of order and discipline over them, and, at the same time, to draw their attention to their lessons. It is true that I might check their buoyant spirit, and subdue their restless energy, by the use of the rod; but to this species of the "reign of terror" I have the greatest aversion. I wish to rule through influence and love: not merely by blind force. But with these young ones I have found this almost without result. Perhaps you will say that I should try to *interest* them, &c. This is all very well where it can be done. English children may be interested in that language, because it is their mother tongue; but Welsh children *cannot* be interested in it, and we dare not use *their* mother tongue to interest them. What then *is* to be done? If you could assist me in my difficult position, and inform me of some books where principles and methods applying to this are detailed, you would confer on me the greatest benefit. A YOUNG SCHOOLMASTER.

Bitterley Grammar School, Ludlow, Salop, Aug. 10th, 1854.

SIR,—I trust you will pardon the liberty I have taken in enquiring whether the chapters upon Mental Arithmetic, or Amusements in Numbers (which have appeared in your valuable publication) are to be continued?

As I am desirous of advancing my pupils in this science, and anxious to be guided by the *Papers for the Schoolmaster*, I should be pleased to see a subject so well commenced, pursued; and, having waited twelve months for a third number upon this head, I may be excused asking for a reply in your next number. And I should be yet further obliged to any brother teacher, who will inform me of the best and plainest book upon Mental Arithmetic, together with the adaptation of the same to a class of children at present entirely ignorant of mental calculations.

By thus rendering assistance, you will confer a favour upon
Yours truly,
H. W. MATHEWS.

PAPERS FOR THE SCHOOLMASTER.

No. 44. OCTOBER 1, 1854.

Heartwork, Headwork, and Handiwork.

Thus, we think, run in the vernacular, the several names of that Educational Triad, of which we learn so much under the more sonorous appellations of Moral Training, Secular Instruction, and Industrial Occupation. Each of these has its somewhat exclusive advocates, but a true education can be given only by their combination, never by their disunion; inasmuch as the subject of our educational—must we say hitherto—experiments, is a compound of a moral, an intellectual, and a physical nature, so intimately blended, as to defy our attempts at decomposition, and to baffle our powers of analysis. We may, as in chemical science, produce, by the employment of any one re-agent, startling results, but the chemist, under similar circumstances, would not consequently imagine himself acquainted with the whole composition or capabilities of the material under examination. Some of our experimental educationists have been, perhaps, rather too limited in their investigations, too sweeping in their deductions, too sanguine as to their success. Although the acquisition of the Philosopher's Stone is yet a desideratum, and the olden Alchymists failed in gaining the object of their toil, yet their labours have not been altogether valueless. And similarly, while some may have imagined that a perfect educational system would prove a panacea for all our social evils, the results of experience have shown that it may not be an ineffectual one for many. We have clearer views of what Education can do, of what it ought to do, and of what it is. After all, a low view of the subject is yet too prevalent, and there is but little danger of our speculations, to say nothing of our practice, becoming too exalted. Our chief danger seems to lie in the possibility of the disjunction of the Educational Whole, which we have indicated above, and in looking for satisfactory results from its partial, instead of its perfect, operation; we shall have made a mistake, should we class any subject as appertaining to one of its heads only. Of this we have had, and have, some prominent examples. "The matter," says one advocate, "which should be most insisted upon in a school, is the 'Religious Instruction.'" Forthwith, rises before us, mentally, out of the past, a vision of a "first class," in merino green, brown, or blue, a "hollow square" of irreproachably white pinafores, of hair of the "regulation length," or else of a "suit of motley," on which the donors seem to have made random experiments in decoration with the primary colours. We listen to a brisk fire of question and answer; our thoughts oscillating between the Council of Trent and the Westminster Divines; and have an unaccountable reminiscence of the moon as we last saw it through a telescope, sharp, distinct, well-defined,—cold, lifeless, and without an atmosphere. Text and formula have been faithfully committed to memory, and appositely applied, and we look around for the results upon the practice and morals of the school. Here, we surprise one or two in the act of taking covert glimpses at their neighbours' slates; there, while the teacher's eye is averted, is a rapid consumption of fragmentary "sweet-stuff"; an animated conversation is at its height in one class, while open hostilities have broken out in another. We are reluctantly compelled to class the display with which we have been favoured as much on a par with an animated exercise in mental arithmetic, as a "keen encounter of the wits";—alas, only,—in a dexterous application of Holy Scripture, instead of pounds, shillings, and pence. "Of course," rejoins another advocate, "what else is to be expected from such cramming children with creeds and catechisms, texts and articles? My system ignores such narrow sectarianism, such adherence to dogmas, and brings up its children by moral training, based on the broad principles of right and wrong." Possibly, our friend may find "audience fit"; as we cannot but secretly wish that he may have scholars "few"; for the mass of men, somehow, seem to invariably associate faith and practice. And we trust the day may yet be far distant when there shall be either a demand or a supply of teachers who can leave their religious faith on the outside of their schoolroom doors. Education would, we believe, be, on such a supposition, an impossibility, and instruction but a mockery. Information might be given, and discipline maintained, but the one would be heartless, and the other mechanical; just effective in school-hours, but valueless for a life. No principles, to stand life-wear, could be implanted, for principles spring from belief, and belief must confess a creed, and a creed would be contraband. Here, then, occurs the first necessity for an intimate blending of heart and headwork; if, ere now, we have laid too much stress upon the latter, let us beware lest, for the future, we should consider the former effectual without the second. The inculcation of Christian doctrine can form the only true ground for exhortation to aught resembling Christian practice. By all means would we have our children trained up to give a reason for the hope which may be in them, to give a detailed account of the things most surely believed among us; we have no feeling as regards Catechisms, equivalent to hydrophobia; but would say, nevertheless,—this may be an headwork,—there are such things as child-sins, and child-temptations, and child-resistance to them, possibly, still left untouched and unaided; very little things to the man, but very practical to the child, child heartwork; and see to it, that not only your teaching, but your example and sympathy, meet these wants, for somewhat is written of a "mill-stone," and the depths of the sea" It is "heartwork," which constitutes that indescribable something, the "tone" of a school, which produces the moral atmosphere pervading and insensibly influencing all its operations, which supports truthfulness and honesty, cheerfulness and alacrity, industry and assiduity; which divests the teacher of even the most secular knowledge of the character of a teaching-machine. We all, probably, have a painful experience of what some favourite melody, as "secular" as you please, becomes, when "ground" upon a barrel-organ; but let the same strain be produced by the touch of living fingers, and how appreciable is the difference? The one is mechanical, the other human. In the former the very precision is painful, and the accuracy most unfeeling, even if the melody be not mutilated to suit the measure of the "unprincipled" barrel. Mechanism can never interpret the ideal of a great composer, or evoke the spirit of a complex harmony. It is difficult to express to how great an extent this "heart-feeling" can be carried into the minutiæ of [a school. It has been, and still is, the practice of some of the greatest painters to cover their canvas in the first instance wi th a vivid red; no particle of it may be separately visible in the finished work; but it has nevertheless deepened the shadows, and heightened the tints, imparted a warmth, and produced a generous effect, which without such a preliminary process would have been unattainable,—notwithstanding what might have been previously argued as to the non-transparency of oil-colour. Our Gallic neighbours are said to dispense with some of the faultless precision which distinguishes our own minor military movements; where mere military glory alone is a heart-feeling and a passion, it supersedes the necessity of perpetual drill.

We are not now about to enlarge on the means by which this combination of heart and head work might be brought to bear on every branch of secular instruction; how, for example, history would grow under its influence into a living reality, in place of being a mere catalogue of names and dates; and how can it be otherwise without the introduction of definite principles, and a recognised standard? But how is this combination to be still further linked with "handiwork?" An apostle has left on record an injunction that, whatsoever is done as duty should be done "heartily." Would he have been mistaken in an educational theory, because he adds the underlying principle of the heartiness,—"as unto the Lord?" Heart-work teaches to do do all work heartily; it would impress on all the descendants of "the grand old gardener" the dignity of labour, and would make a sound comment on the assertion that "work is worship." Nor, can we believe that the most definite doctrinal instruction has any lurking antagonists in either the "School of Design," or the "School Allotments;" the one lays down the principles, the others teach the business of life; both needful, for Art has its temptations, and sheer labour is not elevating. We cannot imagine how a vivid perception of beauty in form and colour can detract from the lesson of faith, in considering "the lilies how they grow." And in an occupation so industrial as the school-garden, the practical educator may, we think, find opportunities for inculcating "brotherly kindness" far more effectually than by demanding mere faultless repetitions of our "duty to our neighbour." In the school-farm, or among the school pets,

"Mercy to the beast to show,—
Love to all things living lowly,"

may be better taught than by a score of gallery lessons, and how forcibly when "principles" allow of allusion to that cradle in a manger? The future life of our children will require handiwork; we will elevate it by headwork, and hallow it with heartwork. If life is to commingle these things, school should commence the process. We must not present "handiwork" to the child as mere toil, or "headwork" as mere knowledge, or "heartwork" as mere sentiment; which we shall do if we separate them. The example of Him who suffered the little children to come to Him, was of One growing "in wisdom and in stature, and in favour." Let our Education endeavour to follow it, presenting Heartwork, Headwork, and Handiwork, each in that phase and proportion which belongs to child life; so shall we be training effectively for the life ever lying before us, and which demands that we should ever

> "With a heart for any fate,
> "Still achieving, still pursuing,
> "Learn to labour, and to wait."

M.U.R.

Analysis of Sentences.

We return to this subject, referring our readers to the extracts in vol. ii, p. 114.

1. Every sentence must contain a *subject*, or name of something of which we speak; and a *predicate*, or what we say of the subject.

THE SIMPLE SENTENCE.

1. A *Simple* Sentence contains but one subject, and one predicate; as, "Iron rusts."

2. The Subject of a Simple Sentence must be either a name, or some word or phrase which takes the place of a name; as "*England* rejoices;" "*They* mourn;" "*To be good* is to be happy."

3. The Predicate of a Simple Sentence may be,

(1.) Any (so called) tense of a verb; as "The Sun *has set;*" or,

(2.) Some part of the verb *be*, followed by (a) an adjective, (b) a participle, (c) a noun, or a word used as such; and (d) an adverb; as, (a) "He *is tall;*" (b) "He *is calling;* "He *is called;*" (c) "He *is an Author;*" "It *is he;*" "Our object *is to be happy;*" (d) "My father *is here;*" or,

(3.) A verb whether called auxiliary or not, followed by another verb in the infinitive, as, "She *ought to go*;" "The sun *ceased to shine*." What is commonly called the Imperative Mood of a verb will be found to be, properly speaking, only an Infinitive forming part of the Predicate of a sentence understood; thus, "Speak!" is equivalent to, "I *bid* you (*to*) *speak*."

4. Instead of the verb *be* in the second form of the predicate mentioned above, we sometimes find another intransitive verb, as *seem*, *become*, &c. "He *seems happy*." "The shepherd *became* a king."

THE SUBJECT.

1. The *subject* of a sentence may be enlarged by various words and phrases, which qualify it, or in some other way extend its meaning. Such words or phrases are called adjuncts to the subject, and are of various kinds;

(1.) An Article, "*The* birds sing."

(2.) A Possessive case, "*The boy's* birds sing."

(3.) A Noun in apposition, or an appositional phrase, "Victoria, *the Queen*, rules wisely." "The birds, *heralds of summer*, have begun their song."

(4.) An Adjective, "The *little* birds sing."

(5.) A Participle—"The soaring eagle, *wounded*, fell to the earth."

(6.) An Adjective phrase; which phrase is of two kinds.

(a) It may be introduced with a participle, "The birds, *rejoicing in the sunshine*, sing."

(b) It may consist of a simple preposition and its object, "He, *in despair*, surrendered."

(7.) The subject may be enlarged by a preposition and its object, "A companion *of wise men* shall be wise." It will be seen that the prepositional phrase, "of wise men," takes the place of the possessive case, and must be distinguished from the adjective phrase in the preceding example.

THE PREDICATE.

1. *The Predicate* may also have its qualifying words or adjuncts. These are of two kinds:—

(1.) An adverb—"They sing *joyously*."

(2.) An *adverb phrase*, consisting of a preposition and its object —"They sing *throughout the day*."

.2 *Completion of Predicate.*

(1.) Sometimes the predicate is of such a kind that its full meaning is not expressed, unless it is followed by a noun or some word used as a noun; this word is called the *object*, and is said to *complete* the predicate; as, "He found *the book*;" "*Thee* I revisit safe."

(2.) The object is sometimes connected with the predicate by a preposition, and in this case the preposition may be considered as forming part of the predicate—"He *saw through* the deceit."

3. The object may be enlarged in the same manner as the subject.

4. The following is an example of a simple sentence, with all its parts variously enlarged:—

"Firmness of purpose, combined with energy, will generally overcome, in the end, the most vigorous opposition."

(a) *Firmness*—simple subject to predicate (d)
(b) *of purpose*—enlargement of subject (a)
(c) *combined with energy*—adjective phrase, enlarging the subject (a)
(d) *will overcome*—simple predicate to subject (a)
(e) *generally*—adverb, enlarging predicate (d)
(f) *in the end*—adverb phrase, further enlarging (d)
(g) *the most vigorous opposition*—enlarged object, completing the predicate (d).

(To be continued.)

Decimal Coinage.

No. II.

In our last number we stated that the advantage aimed at in the new system of coinage will consist in the greater facility of reckoning money. Sums in compound arithmetic will then no longer differ from those in simple arithmetic. This advantage will be more forcibly shewn in presenting to the reader a few examples in the ordinary rules.

Ex. 1. Multiply £756, 6 florins and 37 cents by 7. Now this amount may be written under the same denomination of a pound thus—£756.637, since 6 florins are 6-10ths of a pound and 37 cents are 37-1000ths of a pound.

Now £756.637
7

£5296.459, *i.e.* £5296, 4 florins and 59 cents.

Ex. 2. Divide £5296, 4 florins and 59 cents. by 7.
7)£5296.459

£756.637, *i.e.* £756, 6 florins and 37 cents.

Ex. 3. What is the value of 564 lbs. of soap at 13 cents per lb.? Now 13 cents is £.013.

$$\begin{array}{rcr} 564, & \text{or for brevity,} & 564 \\ .013 & & 13 \\ \hline 1692 & & 1692 \\ 564 & & 564 \\ \hline £7.332 & & 7332 \text{ cents} = £7.332. \end{array}$$

Ex. 4. What is the price of 18 quarters of wheat at £2, 4 florins and 36 cents?

$$\begin{array}{r} £2.436 \\ 18 \\ \hline 19488 \\ 2436 \\ \hline \end{array}$$

£43.848, or £43, 8 florins and 48 cents.

Ex. 5. Find what interest is due upon £656, 5 florins and 6 cents, for 1 year, at 4 per cent.

Rule—First divide by 100, and the quotient will shew how many £100 there are in the given sum; then, since every £100 produces £4, multiply this quotient by 4, and the product gives the answer.
Thus, £676.506, divided by 100, gives £6.76506, for the operation in decimals throws back the decimal point two places, and multiplying this quotient by 4 we have £27.06024, or £27 and $60\frac{24}{100}$ cents.

Ex. 6. What is the interest on £565, 6 florins and 32 cents, at 5 per cent.?

$$\begin{array}{r} 100)£565.632 \\ \hline £5.65632 \\ 5 \\ \hline \end{array}$$

£28.28160, or £28, 2 florins and $81\frac{6}{10}$ cents.

Ex. 7. Interest on £437, 4 florins 65 cents, at 2 per cent.? Ans. £8.749$\frac{3}{100}$.

Ex. 8. Interest on £425, 6 florins 42 cents, at 3 per cent.? Ans. £12.769$\frac{13}{50}$.

Class Instruction.

No. II.—SCRIPTURE.

Endeavour clearly to understand the *use* of the Bible in schools. It is a book whose aim is to bring back man to God; it exhibits a plan whereby he may be saved, it points him to a Saviour; hence it is of infinite importance, and the lessons connected therewith should be conducted with *reverence*. Never employ it as a common lesson book, to teach the elements of reading, spelling, or grammar, as many evils result from such practice; not the least of which is the distaste which makes it a sealed book in later life, arising from the associations with its earlier use. It would be well to distinguish Scripture Reading by greater seriousness, and by not resorting to those devices for correction and competition, adopted in other lessons.

The facts, doctrines, and precepts, of Holy Scripture *must be lodged in the memory* of your children. The value of such an acquaintance cannot be too highly estimated, yet such knowledge in itself is not sanctifying; the experience of many a schoolmaster corroborating the assertion of Inspector Symons, "It is very common to find children who have a perfect knowledge of, at least, the cardinal means of salvation, and all the leading truths and doctrines of Scripture, and yet who turn out dissolute and depraved, and very frequently worse than those who have been left in ignorance." The only remedy in a teacher's power, for such a condition as this, is to add to Scriptural Instruction, Moral and Religious Training, by means of collective Bible Lessons, in which the truth must be made to affect the heart, and quicken the conscience; and by everything in the government of the school being referred to the teaching and authority of the Word of God.

Scripture Reading presents difficulties of a very different character to those of ordinary text-books; here the difficulty arises from the language being unknown, but, in the case of Scripture, it grows out of its very familiarity. The phraseology of Scripture is so familiar in itself, and, by frequent repetition, is so familiar to the ear, that its most important statements fail to arrest the attention, its most pathetic stories to affect the heart, and its most momentous truths to alarm the conscience. Now this difficulty, if the teacher would be successful, must be overcome; and we know no better plan of doing so, than that proposed by Jacob Abbott, as "Picturing to the imagination the scenes described," and brought greatly into prominence in this country, as the "picturing out" method, by Mr Stow; this gentleman proposing that the teacher shall do for the children what Mr. Abbott would have them taught to do for themselves. The passage in Mr. Abbott we strongly recommend to your careful perusal:—

1. *Picturing to the imagination the scenes described.*—There is a very common difficulty felt by multitudes in reading the Bible, which admits of so sure and easy a remedy by the above direction, that I cannot avoid devoting a few paragraphs to the formal consideration of it. A person who is convinced that it is his duty to read the word of God, and who really desires to read it, and to receive instruction from it, sits down on the Sabbath to the work. He opens, perhaps, to a passage in the gospels, and reads on, verse after verse. The phraseology is all perfectly familiar. He has read the same passage a hundred times before, and the words fall upon his ear like an old familiar sound, producing no impression, and awakening no idea. After going on a few verses, he finds that he is making no real progress; perhaps his mind has left his work altogether, and is wandering to some other subject. He begins back therefore a few verses, and endeavours to become interested in the narrative; but it is to little purpose, and after spending half an hour in his reading, he shuts his book, and instead of feeling that renewed moral strength and peace of mind which comes from the proper use of the word of God, he feels disappointed and dissatisfied, and returns to his other duties more unquiet in spirit than before. What a vast proportion of the reading of the Bible, as practised in Christian countries, does this description justly pourtray.

Now, some one may say that this careless and useless study of God's word arises from a cold and indifferent state of heart towards God. It does, unquestionably often arise, to a great degree, from this source, but not entirely. There is another difficulty, not connected with the moral state of the heart. It is this:

Words that have been often repeated gradually lose their power to awaken vivid ideas in the mind. The clock which has struck perhaps many thousand times in your room, you at last cease even to hear. On the walls of a schoolroom there was once painted in large letters, "A PLACE FOR EVERY THING, AND EVERY THING IN ITS PLACE," but after a little time, the pupils, becoming familiar with the sight of the inscription, lost altogether its meaning, and a boy would open his disorderly desk, and look among the confused mass of books and slates and papers there, for some article he had lost, and then as he looked round the room, his eyes would fall on the conspicuous motto without thinking a moment of the incongruity between its excellent precept and his own disorderly practice. It is always so. The oft repeated sound falls at last powerless and unheeded on the ear.

The difficulty, then, which I am now to consider is, that in reading the Bible, especially those portions which are familiar, we stop with merely *repeating once more the words*, instead of penetrating fully to the meaning beyond. In order to illustrate this difficulty and its remedy more fully, let me take a passage, for example the 6th chapter of St. John, to which I have opened at random.

"After these things Jesus went over the sea of Galilee, which is the sea of Tiberias.

"And a great multitude followed him, because they saw his miracles, which he did on them that were diseased."

How familiar, now, this sounds to every reader. Every phrase comes upon the ear like an oft-told tale, but it makes a very slight impression on the mind. The next verse, though perhaps few of my readers know what it is, will sound equally familiar when they read it here.

"And Jesus went up into a mountain, and there he sat with his disciples."

Now, suppose this passage, and the verses which follow it, were read at morning prayers by the master of a family, how many of the children would hear it without being interested in it at all, or receiving any clear and vivid ideas from the description. And how many would there be who, if they were asked two hours afterwards what had been read that morning, would be utterly unable to tell.

But now suppose that this same father could, by some magic power, show to his children *the real scene* which these verses describe. Suppose he could go back through the eighteen hundred years which have elapsed since these events occurred, and, taking his family to some elevation in the romantic scenery of Palestine, from which they might overlook the country of Galilee, actually see all that this chapter describes.

"Do you see," he might say, "that wide sea which spreads out beneath us, and occupies the whole extent of the valley? That is the sea of Tiberias; it is also called the sea of Galilee. All this country which spreads around it is Galilee. Those distant mountains are in Galilee, and that beautiful wood which skirts the shore is a Galilean forest."

"Why is it called the sea of Tiberias?' a child might ask.

"Do you see at the foot of that hill, on the opposite shore of the lake, a small town? It extends along the margin of the water for a considerable distance; that is Tiberias, and the lake sometimes takes its name.

"But look. Do you see that small boat coming round a point of land which juts out beautifully from this side of the lake? It is slowly making its way across the water, we can almost hear the plashing of the oars. It contains the Saviour and some of his disciples. They are steering towards Tiberias,—now they approach the shore,—they stop at the landing, and the Saviour, followed by his disciples, walks up upon the shore."

Suppose now that this party of observers can remain a little longer at their post, and see in a short time that some sick person is brought to the Saviour to be healed. Another and another comes. A crowd gradually collects around him. He retreats slowly up the rising ground, and after a little time he is seen to take his place upon an elevated spot, where he can overlook and address the throng which has collected around him.

If this could be done, how strong and how lasting an impression would be made upon those minds. Years, and perhaps the whole of life itself, would not obliterate the impression. Even this faint description, though it brings nothing new to the mind, will probably make a much stronger and more lasting impression than merely reading the narration would do. And what is the reason? How is it that what I have here said has impressed this scene on your minds more distinctly than the simple language of the Bible? Why, it is only because I have endeavoured to lead you to *picture this scene to your minds*—to conceive of it strongly and clearly. Now, any person can do this for himself, in regard to any passage in Scripture. It is not necessary that I should go on and delineate in this manner the whole of the account. Each reader can, if he will task his imagination, paint *for himself* the scenes which the Bible describes. And if he does bring his intellect and his powers of conception to the work, and read not merely to repeat formally and coldly sounds already familiar, but to bring vivid and clear conceptions to his mind of all which is represented there, he will be interested. He will find new and striking scenes coming up continually to view, and will be surprised at the novelty and interest which this simple and easy effort will throw over those very portions of the Bible to which the ear has become more completely familiar.

I wish that now every one of my readers would really try this experiment. It will do very little good merely to read the foregoing directions, and resolve generally to try in future to form vivid and clear conceptions of what is described when you are reading. You must make *a particular effort to learn* to do this. Now, the next time you sit down to reading the Bible, turn to the fifth chapter of the Gospel according to St. Luke, and picture to yourself, as vividly as possible, the scene described there. Do not think of a shore in general, but conceive of some particular shore. Give it shape and form. Let it be rocky or sandy, or high or low—bordered with woods or with hills, or with meadows. Let it be something distinct. You may, if you please, conceive it to be a long sandy beach, with a lofty bank and a verdant field behind; —or you may have it an open wood, sloping gradually down to the water's edge,—or a rocky irregular coast full of indentations,—or a deep and narrow bay whose shores are overhung with willows. Let it assume either of these forms, or any other which your fancy may pourtray, and which may suit the circumstances of the narrative; only let it be *something distinct* – clear and distinct in all its parts, so that if you had power to represent upon canvass, by painting, the conceptions of your mind, you might execute a perfect picture of the whole scene.

To do this properly will require time and thought. You must be alone, or at least uninterrupted, and your first effort will be a difficult one. The power of forming clear and vivid conceptions of this kind varies greatly in different individuals. The faculty can, however, be cultivated and strengthened by exercise. Historical painters, that is, painters of historical scenes, are enabled to produce very great effects by the possession of this power. West, for example, formed in his own mind a clear, and vivid, and interesting conception of the scene which was exhibited when the crowd of angry Jews rejected the Saviour and called for his crucifixion. He painted this scene, and the great picture which he thus produced has been gazed at with intense interest by many thousands.

I saw this picture in the gallery of the Athenæum at Boston. The gallery is a large and lofty apartment, lighted by windows above, and containing seats for hundreds. As I came up the stairs which lead into the room, and stepped from them upon the floor of the apartment, I found a large company assembled. The picture, which was, as I should suppose, ten or fifteen feet long, stood against one side of the apartment, and before it, arranged upon the seats, were the assembled spectators, who were gazing with intense interest, and almost in perfect silence, upon the scene. As we came forward before the canvass, we felt the same solemn impression which had silenced the others; and it was interesting and affecting to observe, as party after party came up the stairs, talking with usual freedom, that their voices gradually died away, and they stood silent and subdued before the picture of the Saviour.

Yes; there stood the Saviour in the middle of the picture,—passive and resigned, and with a countenance whose expression plainly said that his thoughts were far away. The Roman governor stood before his palace, endeavouring to persuade the mob to consent to their prisoner's release. The uncovered and hard-featured soldiery sat at his feet upon the cross, which they had been carrying, and were holding in their hands the spikes with which the innocent limbs of the one before them were to be pierced. All the other attendant circumstances were most vividly and strikingly represented. The mob were there, with fury, and rage, and hate, in every variety, upon their countenances. Barabbas was there, with his look of hardened and unsubdued guilt,—and the centurion's little daughter, whose life Jesus had saved, stood by her father, apparently entreating him to interpose his power to rescue her preserver.

Now, West must have possessed, in order to succeed in executing such a work, the power, first, of forming a clear mental conception of the scene, and, secondly, of representing this scene by colours on the canvass. The former of these only is the one necessary for the object I have above described; and you ought, while reading accounts of Scripture scenes, to form as vivid and distinct conceptions of the scenes described as if you were actually intending to represent them by the pencil.

(To be continued.)

Notes of Lessons.

MODEL LESSONS, AS GIVEN IN THE NEILSON EDUCATIONAL INSTITUTION, PAISLEY.

(Continued.)

The following outlines are intended to indicate merely the kind of instruction given daily in the Institution, without conveying an idea of the methods of intellectual culture pursued by questions, ellipses, and illustrations.

BIBLE LESSON.

"Tribulation worketh patience."—Rom. v. 3.

Show that in ancient times men cast their ideas in a *material* mould. Thus the miseries of life were looked on as the waves of a rough sea, in which the bark Humanity laboured, when the term *Affliction* was first applied. In the same manner, *distress* alludes to the dishevelled hair of Eastern women, which was an expression of sorrow; a man in *perplexity* is literally one entangled in business, as a thread may be in a skein; *calamity* points to the destruction of crops, which some say it once signified; and *grief* tells of the depression caused by some intolerable burden. Many looked at that time on evil as sent by a blind and capricious Destiny or Fate.

But when Christianity appeared and spread over the Roman Empire, these words, *affliction*, *distress*, *perplexity*, *calamity*, *grief*, received a spiritual meaning, being made synonymous with *chastisement*, *correction*, and *tribulation*. St. Augustine introduced the last, comparing the work of God on the soul to a threshing of corn with a flail; that as the chaff is separated from the wheat, so the vanities of time may be parted from the soul. "All things" were now seen to "work together for good to them that love God." It was then seen that "whom the Lord loveth he chasteneth, and scourgeth every son whom he receiveth." Tribulation then *can* work patience.

Meekness is the enduring of evil from man, patience from God. Moses was meek, Job patient. When Job lost his family and riches; when his health departed, and he himself sat on the dunghill, he could say, "I was dumb before him, I opened not my mouth." This was the part of patience called *submission*. And when lying, as it were, under God's uplifted sword, he cried out, "Though he slay me yet will I trust in him." This was the language of *confidence.* Submission is the receiving an impression like molten wax; confidence is the solidifying so as to retain the impress. Submission and confidence *are* patience. Thus patience is secured by tribulation, and contributes to fit for the society of God, and therefore we glorify God in tribulation, knowing that "tribulation worketh patience."

READING LESSON.

THE *PALM* TREE.

It *waved* not through an *Eastern* sky,
Beside a *fount* of *Araby;*
It was not *fanned* by *Southern* breeze
In some *green isle* of *Indian* seas;
Nor did its graceful *shadow* sleep
O'er stream of *Afric lone* and deep.—MRS. HEMANS.

ANALYSIS.

1. Show that *palm* is named from the likeness of its leaves to a man's hand. The word *date* is connected with *dactyle*, a finger, from the shape of that *fruit.*

2. *Eastern*, same as *Oriental—Western, Occidental.*

3. *Araby*, *Indian* isles, and *Afric* are the native lands or *habitats* of the palm. It is here *exotic* -there, *indigenous.*

4. *Waved* and *fanned* imply gentle winds; while sleeping of the shadow implies a calm.

5. *Green*, Saxon word for *verdant*—"the green" shows it a noun; here it is an adjective.

6. *Isle* is the same as Gælic *Inch* or *Innis* in Inchkeith, Innismore; also same as *island*, from Latin *insula.* Islet a diminutive, meaning a little isle.

7. *Lone* tells that some parts are but thinly peopled.

8. Connect shadow with shade; southern, south—ful, full—stream, streamlet—fount, fountain—fan, fanners—Afric and African—showing the force of the terminations.

SECULAR LESSON.

(Showing how Zoology is taught as a science, with a regard to classification.)

THE LACERTIDÆ, OR LIZARDS.

We have first to look for a central animal in the class, which shall be a *type* of the majority of its companions. This is most easily done by observing what processes are to be carried out in the workshop of nature, and then, by our reason and imagination, discovering the sort of creature required.

In Egypt we have the river Nile; in S. America, the Amazon; in Hindostan the Ganges, flowing from lofty mountains through almost interminable plains before they reach the ocean. Their courses are generally slow, the temperatures of the surrounding lands very high, so, the children of the Hindoo mother, thrown into the Ganges,—the carcass of the buffalo that has been drowned crossing the infant Amazon, and the body of the poor dervish, who has accidentally fallen into the Nile—as they are swept out by the muddy waves, putrify and taint the waters and surrounding air. The result—the fish would die, and the people living on the banks would be exposed to the plague. There is, therefore, a *necessity* for scavengers in these streets of water.

Let us now *delineate* the creature. As it is not to meet the eye of the tasteful, it needs not a beautiful form That it may live in ease and security, array the whole of its body, except the under part, in bony plates. That it may paddle about and seize its prey, it has four feet, more or less webbed, and armed with claws; and for the former purpose a long, vertically-compressed tail is also supplied. It does not need any lips to hide its separately-set, sharp-pointed teeth; and as its food has often a disagreeable flavour, we find the tongue but little developed. Such an animal, in the Nile is the *crocodile*. Mandeville, the old English traveller, tells of its tongue; and Shakespeare speaks of its snaring "relenting passengers with sorrow," while the traveller also informs us that it eats such with tears.

Now that we have indicated the *characteristics* of the typical individual, and as the other members of the class (are supposed to) have been treated individually at an earlier stage, a slight glance at them will suffice.

When the Spaniards and Portuguese invaded S. America, they found a similar creature in the Amazon, the native name of which was something like *cayman;* but wishing to put the mark of Europe on every thing, they called it the Alligator; the Latin word *lagertus*, meaning the lizard, and their form of it being lagarto, they put their article *al* before it, and made *Alligator*.

The name of the one found in the Ganges is the *Gavial*.

In geological waters, the ichthyosaurus cleansed the beds of the muddy rivers, by preventing stagnation; so did the swan-necked plesiosaurus; while the bat-like, anomalous pterodactyle, rose into the air. The wonderful *Chameleon*, famed for its fabulous air-diet, and its actual power of changing colour, the *Gecko*, and the *British lizards*, are miniature specimens of the same class. The *Lacerta Agilis* is found in Paisley Moss.

Note.—*The Secular lessons are made subservient in the higher classes to the great purposes of Natural Theology.*

Educational Intelligence.

The following copy of a letter has been received by the various Normal Institutions:—

Committee of Council on Education,
Council Office, Whitehall, Sept. 22, 1854.

Rev. Sir,—In reply to your letter of the 8th inst., wherein you inquire how the Minute of 28th June last, and the circular of 29th July, affect teachers who already hold certificates of merit, and seek to raise the value of them, I am directed to state that the 11th section of the Minute in question indicates the course whereby my Lords desire to see that object ordinarily pursued.

Their Lordships, so far back as April, 1850 (Minutes 1850-1, vol. i., p. 85), have publicly expressed their opinion on the subject of re-examination, and the section to which I have had the honour of referring you in the Minute of 1853 does little more than give practical effect to the same views. The authorities of Training Colleges, who desire to encourage a second year's residence, are deeply interested in regulating the facility whereby the student, who is content to leave with a first year's certificate, may improve it by immediate re-examination as a teacher.

Premising this much upon the general question, I have to state that teachers already certificated, who present themselves for examination in December next,

(*a*) Will not have any immediate benefit from the higher place which they may obtain, unless or until there have been two favourable reports upon their schools.

(*b*) Being under 35 years of age; their old Certificate may be taken to dispense with the necessity of beginning with the first year's papers: they have no motive to take those papers unless their old certificate be lower than the first division of the third degree, which is the highest rating to be obtained, by Teachers of that age, upon the first year's paper.

(*c*) Being over 35 years of age; they may take the first year's papers, if they prefer them, without being restricted to the third degree of rating, provided they exhibit, in their exercises, that mastery and thoughtfulness, which, at their maturer age, may be more fairly expected, than the acquisition of new attainments.

Such are the regulations which will take effect in December next; but, in December, 1855, and thenceforth, re-examination will not affect the value of the Certificate, until the time comes for revising it at the end of the then current period of five years. If, at the end of any such period, a Teacher is found to have afforded evidence, not only of improved School-keeping, but also of increased attainments, he will not fail to reap the benefit of such two-fold merit; but, in the meantime, the result of the re-examination will be simply recorded.

It will be evident, from these observations, that my Lords do not wish to encourage the practice of seeking re-examination, except with strict attention to the discharge of daily duties in school. Re-examination is no longer the only path by which an improved Certificate can be reached.

So far as a Certificated Teacher has time for study, it is desirable that he should devote himself to some specialty rather than to the whole circuit comprised by a general examination.

My Lords have already provided for special examinations in the knowledge required for the use of scientific apparatus, as you will see by the end of Professor Moseley's report on that subject. They have also placed Drawing, and will (probably in the course of another year) be enabled to place Music upon the like footing. Teachers who pass really good examinations, to the satisfaction of competent authorities, in one or more of these subjects, will be specially noted with A, D, or M, in the calendar, in addition to the entry of their general certificate.

These are objects of study to which a Certificated Teacher should turn himself.

Much also may be done by such a teacher for the improvement of his School (and consequently of his own certificate, through the Inspectors' Reports,) by giving up his attention to some study which carries with it local importance, e.g., Navigation in a sea-port town, Mechanics and Geology in the neighbourhood of Foundries and Mines, Agricultural Chemistry in rural districts, and the like. A schoolmaster who steadily pursues his work in school, and who gives his leisure to some one such study, will soon find, in respect both to himself and his pupils, how much more is to be gained in this way, than by preparing himself for constant examinations, in all the subjects which enter into a complete course of Normal Training.

Such an examination cannot be dispensed with, but it should be passed once for all, before the time of application to practice begins.

I have the honour to be,
Reverend Sir,
Your obedient Servant,
(Signed) HARRY CHESTER.

CHANNEL ISLANDS CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

A meeting to establish this association was held at the Jersey National School, on Tuesday 22nd of August last. The Very Rev. the Dean of Jersey occupied the chair. The meeting was attended by the Rev. W. H. Brookfield, and a large number of clergymen and schoolmasters, including several from Guernsey.

The Dean of Jersey said, that feeling as he did the most unfeigned interest in the progress of education, and in the prosperity of those who were engaged in it, he had not hesitated to connect himself at once with the association proposed to be established. The advantages to be derived from such a union of the Teachers of the Channel Islands, both to themselves and to those under their care, were too obvious to require comment, and he could only state that he should feel at all times really happy in promoting, in any way he could, the interests of the association.

Rev. W. H. Brookfield supposed that if the schoolmasters of the Channel Islands had seen more than sufficient of any one face for the last week, it must be his own, but he felt great happiness in having an opportunity of being present at this meeting, because he had long desired to see established, a Channel Islands Schoolmasters' Association. He would take that opportunity of frankly telling the teachers present, that in no part of his large district, including several of the largest counties of England, had he been better pleased with the results of his inspection than in the Channel Islands. The honest conscientious manner in which the duties of the schoolmaster were there performed, reflected credit upon every member of the profession engaged in these islands. He was glad to see this association established, because it would bring teachers more together; their interest were identical, and those mutual feelings of interest and intimacy which ought to exist would be developed. Organization was the order of the day, and there could be no reason in the world why the profession of the schoolmaster, which included large numbers of really excellent men, should be the only one without organization. He felt the greatest interest in the prosperity of this association and he entertained no doubt that the expectations of those gentlemen who had taken an active part in its formation would be abundantly realized.

The following resolutions were then agreed to :—

1. That with a view to the promotion of elementary education on a religious basis in the Channel Islands, the cultivation of mutual intimacy and friendship amongst teachers, and the discussion of such topics as may appear to connect themselves with the individual and social well-being of the schoolmaster, it is expedient that an association of persons engaged in education be now formed. Proposed by Mr. John Marsh, Assistant Master in Victoria College. Seconded by Mr. Edwin Simpson, Master of the Jersey National School.

2. That the persons now present do form themselves into an association having in view the objects mentioned in the first resolution, and that such

associations be called "The Channel Islands Church of England Schoolmasters' Association." Proposed by Rev. Phillip Filleul, Rector of St. Helier's. Seconded by Rev. W. H. Brookfield, H. M. Inspector of Schools.

3. That as it will be inconvenient for teachers residing in the Channel Islands to attend frequent meetings at any one town, the members present recommend the formation of District Associations, and that annual or other meetings be convened in such places as may, from convenience of access, be selected by the Managers. Proposed by Rev. E. Healle. Seconded by Mr. Ruck, of Guernsey.

4. That a copy of the rules, when adopted, be forwarded to the Lord Bishop of Winchester, with a respectful request that his lordship will allow himself to be named Patron of the Association. Proposed by Rev. R. Bellis, Incumbent of St. James, Jersey. Seconded by Rev. — Heath, Incumbent of St. Mark's Jersey.

EDWIN SIMPSON, SECRETARY.

COMPULSORY EDUCATION.

The good that has been effected by the education clauses of the Factory Act, wherever there is really a good school, is the happy result of the first trial made in this country of a legislative compulsory education, combined with an industrial employment of the children, that brings in wages to the parents; and it does not appear to me to have received the attention it deserves from the earnest friends of the education of the working classes. It has now been shewn abundantly, by the experience of nearly twenty years, that it is quite possible to give, in half-a-day of regular attendance at school for three or four years, a very considerable amount of solid instruction, while at the same time a child can earn no small amount of its maintenance, certainly more than sufficient to clothe it well and pay for its education. There are numerous instances of children who, while working daily in the factory, and attending school one half of the day, have made such progress that they were enabled to stand successfully the strict examination for pupil teachers. There appears to be a growing conviction, that until there has been a succession of educated parents among the humbler classes, capable of appreciating the good to their children by a long and regular attendance at school, we never shall have them sent, if their parents can turn them to money account, small though the wages they get with them may be. It must, in some form or other, be made obligatory, and the successful working of the Factory Act in this respect is a very satisfactory beginning. It is a great fallacy, in my opinion, to designate such an obligation an unjustifiable interference with parental rights; for, if such a law existed, it would be felt by those only who neglected their parental duties.—*Horner's Factory Report.*

NOTTINGHAM AND NOTTINGHAMSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The quarterly meeting of this Association was held at Trinity Schools, Nottingham, on the 9th of September. A paper on "Notes of Lessons" was read by Mr. Thurlow, Trinity, Nottingham; some very excellent notes were given, which displayed great skill, and were received with great satisfaction by the members. A short conversation, on joining the General Associated Body, was entered into, which was referred to the next meeting. After dinner a lesson on Milk was given by Mr. Cockrem of Lenton.

BOSTON NATIONAL SCHOOL.

On the 23rd ult., the Head Pupil Teacher, and Boys of this School, presented their Master, Mr. William Gane, with a chased Silver Pencil Case.

EDUCATIONAL CONFERENCE.

A conference of Teachers of the Public Schools in the Western Counties was held on Saturday 19th August, in the school-room at Tortworth, the Right Hon. Earl Ducie having kindly granted the use of it for the purposes of the meeting.

Joseph Bowstead, Esq. H.M. Inspector of Schools, presided on the occasion

The Chairman, after a few introductory remarks, proceeded to call upon various speakers.

Mr. H. Moore, of Cheltenham, spoke on the subject:—"The Educator—what are his aims, and how to achieve them." He remarked that every child has the advantage of a school education, or the deplorable disadvantage of a street education; he is either trained in the paths of honesty, industry, virtue and truth, or he is disciplined in the paths of infamy and vice. The natural and primary educators are the parents. To them has the Almighty entrusted the duty of forming the character—training the intellect, and developing the moral character of the child; and to him are they responsible for the right performance of this high and holy duty, and although parents are compelled to call in the assistance of the professional educator, their duty is so personal, that the teacher cannot become the substitute for the parent. When the educator has taken upon himself the care of a child, he shares with the parents not only their difficulties, trials, and responsibilities, but also their hopes, their joys, and their rewards. The educator differs from the mere instructor. To train the intellect is good—but to elevate the moral feeling is better. Rather to make good than clever children should be the aim of the educator. Education is as much better than instruction as goodness of heart exceeds mere intellectuality. Education should commence at the heart, and should guide the moral feelings to rightly act and judge, and then having laid a good foundation, they might proceed to raise the superstructure as high as they pleased. If he deserved the name, he should not object to be called an enthusiast. Many men have been called enthusiasts, who, when they have succeeded, have been acknowledged to be men of right mind, who prosecuted their studies in a right manner. Galileo, Luther, Columbus, Bell, and Lancaster, were such enthusiasts. The difficulties of the work should but act as incentives to increased exertion.

Handel Cossham, esq., next addressed the meeting on the "Educational Position of England as compared with other great Nations." He said there were two views to be taken of this question—what has been done, and what remains to be done. Enough has been done to make an Englishman feel proud of his country. It appeared by the Census of Education, there were in 1851 in this country, 46,022 day schools, containing 2,144,378 scholars; of whom 1,428,058 were scholars in 15,518 public schools; and 721,920 were scholars in 30,504 private schools. Besides this there was a peculiar feature in this country, to which he attributed much of its morality, the Sunday schools, containing upwards of two million scholars, and 318,000 voluntary teachers. One in 40 of the whole population is engaged in Sunday schools. We do with fewer policemen, and crime is less in proportion than in any country under the sun. He attributed that to a very considerable extent to the Sunday schools of the country. Mr. Mann takes the period of education at from 3 to 15, but we cannot expect to get all the children of those ages; if we get all between the ages of 5 and 12, that is all which can be expected; that would be about 3 millions of children. We have already attained to 2,100,000, and we have in round numbers one million more to bring under instruction. They had to consider the best way of bringing in these. He believed that the great means by which education could be made more general was by making the schools industrial establishments. A great want of our day is keeping our children longer at school. The objection on the part of the parents is not to the mere payment of the 1d. a week; these children can be sent to earn 3s. or 4s. a week, and all who know anything of the privations of the poor must know that it is a feeling which comes home to them. It will only be by a gradual improvement of the condition of the working classes that they would enable them to see the advantage of keeping their children longer at school.

Mr. W. Cook, of Newtown, delivered an address on "the Educational Exhibition," and expressed his disappointment at not having an opportunity of comparing different educational works, visitors being forbidden to touch anything, and continually watched by the police, and there being no facilities for friendly intercourse among teachers. He saw apparatus and fittings of an improved character, but they could not be reorganizing their school every day. There were many beautiful things there, but he felt disappointed, and he hoped that this would prepare the way for an educational exhibition, conducted by teachers themselves.

Mr. T. Turner, of Bristol, said one thing which gratified him at the Conversazione at the opening of the Exhibition, was to see Prince Albert with a teacher's heart and mind engaged earnestly for about two hours in trying to reduce to something like order that miscellaneous collection.—Mr Turner then read a paper in which at considerable length he severely criticised the general arrangement of the Exhibition at St. Martin's Hall.—He then concluded:—We have all heard and said much about improved school books, furniture and appliances for our work, and no one rejoices more than I do in the fact, yet I add also that if such improvements tend to draw off our attention from the more common source of a teacher's inspirations, the earth, the air, the sea, the river's brink, and the ocean's wave, the history of this our world, written as with a pen of iron on its rocks; and more, the natural instincts and sympathies of the human heart, then, I say, with less of such addition and improvement, the better. For, important, as they may be, they are not all important. "The life is more than meat." "The one thing needful" is only to be found in the heart of the teacher himself. And as our common Master "needed not that any should testify of man, for He knew what was in man," so, in our measure, if we would rightly fulfil our mission, we must seek earnestly and humbly to know what is in the child man, and become expert in so applying that knowledge to win by sympathy and moral power the will and heart of our charge. Depend upon it the real life of a school is far other and far more than the intellectual food supplied either by books or lectures. That teacher of us who relies chiefly upon his Library to supply the daily wants of his pupils, will be found very often complaining of the apathy, if not of the more active opposition of his pupil. If we can go abroad on this beauteous earth, and hear no voice, read no sermons, and gain no lessons from these common teachers of humanity, then, depend upon it, such dry souls may aggregate facts or enunciate formulæ, but they will never win the hearts of those little ones whose very natures vibrate most readily with God's own music in the natural world.

The Chairman, in closing the meeting, expressed his gratification at having been present. His daily business was to set a value on the results of the teachers' labours. How was he to do this unless he had some correct idea of the aims they design to accomplish, and the motives which actuate them. It was therefore desirable that he should meet them sometimes out of harness. The Conference had another attraction for him; it was called on a broad basis. The pleasure of doing good was very much marred by being mixed up with a narrow and exclusive spirit. One of the advantages resulting from meetings of this kind based on so broad a basis was that they have a tendency to obliterate minor distinctions, and pave the way for some general action on the subject of education such as may really deserve the name of national. Another advantage was that they would tend to raise the social position of teachers. He should be glad to find that every teacher in the county belonged to some society of this description, for he would find himself very much strengthened and improved by meetings of this sort. Let teachers regard the office as it ought to be regarded, as a calling which requires the very best exertions of the highest intellect—and then humbly and earnestly endeavour to act worthy of their calling, and wait patiently for their reward. He had faith in the future of the teacher. He knew they were making very rapid advances not only in the estimation of the public but also in their mastery over their own art as schoolmasters, and he believed that Society would soon say to the schoolmaster as was said to the unobtrusive man of old, "Friend, go up higher." He conceived the promoters of this Conference were wise in extending their invitation to all friends of education. A knowledge of educational matters requires to be spread among the public. He concurred in the strictures passed upon the Educational Exhibition; he was one of the committee of the Exhibition, but had not acted as such. The exhibition contained many good things, but they were totally unarranged.

A cordial vote of thanks was presented to the Chairman, and the meeting adjourned.

An excellent cold collation was spread in the school-room, of which nearly 100 persons partook.

In the afternoon a paper on School-books was read by Mr. Gough, of Bristol, after which a discussion followed, in which the Rev. J. Edwards, and Messrs. Moore, Houlston, Roomer, (of Bideford,) Norton and Turner took part.

Mr. Bowstead, in closing, said the educator must himself judge of the books which he will employ. He did not approve of any works being appointed by government as text books. They wanted teachers to make themselves acquainted with great and broad facts; besides, as no books are perfect, it would place an obstacle in the way of improvement. There are a hundred different methods, and you may see a good school on each method, simply because the teacher is a thorough hard worker. He had been much delighted by the tone of this meeting, and believed that the cause of education would be much forwarded by the repetition of such conferences, and he should be happy to do any thing in his power to assist on future occasions. (Applause.)

EDUCATIONAL EXHIBITION.—Measures are in course of adoption for its permanent establishment. Though not in a pecuniary sense, yet in almost every other, it has been eminently successful. A selection of the Lectures lately delivered is being prepared for publication.

NOTICES OF BOOKS.

The Essentials of English Grammar and Analysis, by J. D. Morell.—Theobald.—The object of this book is set forth in the author's preface. "The following little book has arisen from the wish often expressed to me, that the method of Analysis, which I have already published in a somewhat more extended form, might be so simplified and abridged, as to be rendered accessible, both on the score of the matter and the price, to the higher classes of primary schools." The former part of the "Essentials" includes the classification and inflexion of words, the latter, the construction of sentences. It is the latter part that we imagine will be the most acceptable to teachers, and though there may be a difference of opinion as to some of the smaller analytic divisions, this book will still afford satisfaction as indicating the standard approved by authority. Apart from its value on this subject, it is otherwise valuable for its clear and concise definitions and exposition. We cordially approve of the change in the method of teaching Grammar, which the character of Mr. Morell's book implies. Teachers who give the method of Analysis of Sentences a trial will soon discover its great advantage over the method of parsing, in giving to the children an intelligence of the structure of a sentence, and the power of its individual elements. The two methods combined will speedily improve the language department in elementary schools, and give it an interest which has hitherto been wanting.

Electricity, by Thomas Tate. (Gleig's Series.)—Longman.—An elementary book by a practised writer in this department, and characterised by its simplicity, numerous experiments, and profuse pictorial illustrations. The work is professedly for beginners, and to them it may be heartily recommended.

The Unity and Completeness of the Church Catechism, by Rev. N. Stephenson.—Groombridge and Co.—Three large broad sheets for use in Parochial Schools. The first sheet contains a good outline analysis of the entire Catechism, so set out as to show that the parts have a clearly defined relation to each other, and the *whole* characterised by unity. The second sheet contains more in detail, an analysis of "baptismal obligation;" the third, the "means of grace." In columns side by side with the text are given brief and pithy explanations, with a fair collection of scripture references to support the text. We learn that these sheets have already won the good opinion of church dignitaries, and one of H. M. Inspectors, and will, we believe, be favorably received by teachers generally.

Botanical Primer, No. 1., by T. English.—Ward and Co.—An introductory tract containing in a tabular form the *Natural System*, with illustrations, to which is added definitions of botanical terms. The purpose to which the author thinks an elementary knowledge of botany should be applied appears from the following extract:—"Let a teacher, for instance, engaging to give a lesson on GRASSES place before his pupils a small portion of common grass, an ear of corn, &c.; specimens of sugar-cane, bamboo-cane, and maize; and also small portions of grains of wheat, barley, rye, oats, rice, and a little sugar, &c.; let him then exhibit the common grass and other specimens, and, proposing certain inquiries about them, educe in what respects they resemble; viz., that they all increase in growth from the interior or centre of their stems, and that the veins of their leaves are straight, simple or parallel;—peculiarities common to all Endogens—(of which he should make systematic notes on his black board)—that their *leaves* are narrow, undivided, alternate, with split sheaths; their *stems* cylindrical, hollow, closed at the joints; and their *flowers* green, glumaceous, in little spikes, racemed or panicled;—peculiarities common to plants of this order (which he may add to his first notes in well-disposed arrangement). Then offering to attention some grains of wheat, barley, rye, oats, rice, &c.; specimens of sugar, a little straw hat or bonnet, let him induce his pupils with a few kind and well-selected inquiries and the aid of a map of the Hemispheres to point out the *regions* and *countries* of which some are natives (as rice a native of Asia, maize of America); in which the cultivation of each predominates, and so indicate that rice supports the greatest number of the human race, &c.; let them tell of the *uses* of the Grasses—that the Cereal grasses furnish important food for man, &c., that with some cooling and nourishing drinks are made, and the stems of some are used for clothing, matting and thatching—stems of the bamboo (some of which are 60ft. in length) employed instead of timber and cordage; paper made of the tissues of some bamboo-canes—from the stems of the sugar-cane (15 feet) much sugar made—the *modes of preparing for use*, &c. —how in some cases much might be saved by a *different* appropriation, &c. &c."

Physical Atlas.—J. Heywood, Manchester.—This is intended as a companion to the "Juvenile Atlas" noticed in our September issue. It is of the same size, contains ten good maps, and is sold for sixpence. Considered in relation to its price, this atlas is deserving of high commendation. Schoolmasters, even in primary schools, will greatly serve their own interests by encouraging their pupils, at least in the higher classes, to purchase for themselves a copy of this cheap production. If efforts like those now making by Mr. Heywood receive the support they deserve, we may hope to see every kind of school help supplied at prices reachable even by the poorest.

The Theory and Practice of Notes of Lessons. By John Jones.—Simpkin and Co.—The little book before us is a creditable effort on the matter of Notes of Lessons. It is true the "Theory" is very brief, and the "Practice," for the most part, confined to Notes on what is technically termed fact-teaching; yet the lessons are considerable in number, and got up with care. We should like to see a number of efforts made by practical teachers to give clear expositions of plans they have found to be effective, but would advise them to do so in as cheap a form as possible, so as to secure a wide circulation.

Correspondence.

TOBACCO SMOKING.

SIR,—Should schoolmasters promote or discourage the practice of smoking tobacco?

If reason be permitted to decide the question the practice must be condemned. That the practice is on the increase must be admitted by all, for we can scarcely take a short walk without meeting numbers of persons smoking; even boys of 12 years old are frequently to be met with smoking cigars or pipes of tobacco.

Now, if it be an evil custom, I believe the schoolmaster is more likely to be the means of checking the practice than any other I know of; but then he must be himself an example to his scholars, for "acts are more powerful than words." Permit me, then, to call the attention of her Majesty's Inspectors, the Heads of Training Colleges, and my brother Schoolmasters, to the consideration of this subject, and if it be an evil, let us not shrink from discouraging it by all the means in our power. I feel prompted to call attention to what I believe to be an offensive, useless, and expensive habit, in consequence of having seen, at a recent holiday excursion of schoolmasters and mistresses, several masters smoking cigars; one, in particular, just out of his apprenticeship, seemed to be as highly gratified with his skill at cigar smoking as if it had been the means of obtaining for him a first-class

Queen's Scholarship. Surely it must have been painful to the feelings of his late master, who was present. We have often reason to thank you for the hints we get in your valuable "Papers," from time to time, on the necessity of remembering how our example may influence our scholars for good or for evil; but I fear the practice of smoking is not sufficiently considered, or I cannot think it would ever find an advocate in a teacher of youth.

AN OLD SCHOOLMASTER.

Sir,—In National Schools, Arithmetic has been and now is taught like Geography, History, &c., viz., simultaneously, a whole class working the same question at the same time, age and ability having apparently no claim for independent working. As Arithmetic is accounted by parents of the first importance, this subject ought to be carefully considered by all teachers. As regards, then, the best method of teaching this important subject, I would ask any of your correspondents, through the medium of your valuable "Papers," this question, "Whether is simultaneous or individual teaching of Arithmetic to be preferred in a school?" M.

Sir,—I thank you for the insertion of my note in the last number of "Papers for the Schoolmaster," and have, at your suggestion, procured the works upon Mental Arithmetic you kindly recommended, and think they will meet my requirements.

I am convinced that you desire, by your publication, to advance the professional interests of the schoolmaster, and regret that circumstances and locality will not allow of my being personally connected with any of the associations which aid in the great work of education. Doubtless many others who, like myself, are prevented receiving help in our work of instruction further than what is offered by your monthly publication, would be willing to correspond with me, either by letter or through the medium of your "Papers," upon general subjects connected with education.

Some twelvemonths ago, "A Constant Subscriber" felt desirous for questions (on subjects at your discretion) to be inserted monthly, and answered by your readers. This (you replied) met with no success; but as I feel that you are disposed to aid in this matter, allow me to suggest, as an improvement, that some *one* teacher should join me in a catechetical instruction, which, being forwarded to you, should be inserted or not, at your pleasure.

If you favour this suggestion, and think such contents would be suitable for your little work, perhaps, by the insertion of this letter, I may be favoured with the name of one who will like to assist in this mutual endeavour to impart instruction.

If, however, it is not in accordance with the economy of your publication, possibly some brother teacher would be willing to correspond privately. H. W. M.

London, Sept. 15, 1854.

Sir,—I am a constant Subscriber to the "Papers for the Schoolmaster." In this month's number—article, Decimal Coinage—I read that 19s. 4d.=9fl. 66c.; that being the case, may I be allowed to ask the writer to calculate the value, say, of 4000 articles by each method. I find 4000, at 19s. 4d.=£3,866 13s. 4d., and 4000, at 9fl. 66c.=£3,864, or a difference of £2 13s. 4d. Trusting that I shall be favoured with a solution of my difficulty,

Yours obediently,
P.M.P.

[P.M.P. will observe, in Rule I., p. 450, that in converting ordinary money into the decimal scale, an additional cent must be added for every 24 farthings. In the working of the example, 4d. has been estimated at 16 cents, but, in reality, a farthing being equivalent to $1\frac{1}{24}$ cent, it follows that 16 farthings = $16\frac{2}{3}$ cents, or 16·6666, instead of simply 16. If this difference be allowed for in all larger calculations, the difficulty, alluded to in the above letter, will be accounted for.

s. fl. c.
Thus, 19 = 9 50
4d. = 16·6666 nearly.

966·6666 cents.
Therefore, 19s. 4d. × 40000 = 38666664 cents.
= £3866 + 6fl. + 64c.

Now, 6fl. = 12s., and 64c. = 1s. 4d. nearly; 4000, at 19s. 4d. each, produce £3,866 13s. 4d., whether calculated in the ordinary or decimal method.]

PAPERS FOR THE SCHOOLMASTER.

No. 45. NOVEMBER 1, 1854.

Wanted at Home.

In those schools in which the practice is adopted of not granting any leave of departure before the appointed hours without the receipt of a written request; or, of sending by the nearest neighbour a form of enquiry after the occupation of absentees; many, we feel sure, are the replies handed to the teacher, which, but for the restraint imposed by higher considerations, would inevitably provoke a smile.

The custom to which we have alluded is not, we think, an idle one, or need it be so treated as to cast a seemingly perpetual suspicion upon the truthfulness of the children; while its results may be most salutary in many instances as regards the parents, as well as the character of the school, and valuable for the information which they amass. Our school statistics have hithertoo been in such matters far too vague to afford any ground for trustworthy inductions. The register book of attendance has, in the generality of instances, indicated by the omission or insertion of its dot or stroke, the absence merely of particular children; its information has been of a negative character, and we have been told that a child was not at school, but have not gained a glimpse of information as to how it was otherwise occupied. Yet, we would wish to know, whether the employment of the child on any and every idle errand shows a lack of appreciation of the benefits of education, or whether they are simply slighted because offered at too cheap a rate to be prized; or whether its advantages are unwillingly foregone from their requiring an outlay which can be ill afforded. It is from the pages of a really well arranged admittance book, and by the aid of that local knowledge which the manager of a school insensibly acquires, that many apparently minor, but in reality important, school-details must be conducted, and the school invested with a spell and charm more potent than the incantation "wanted at home." The plea of "wanted at home" may not only interfere with the regularity of the attendance of those scholars whose names are entered upon the school books, but is not unfrequently an obstacle to the presence of many children at any time.

In many localities, a new but judicious division of school-hours might be found beneficial, in others, an increase, or conversely a decrease of the school-fee might prove productive of good, both as regards the increase of numbers and regularity of attendance; in others, an extension of the weekly to monthly, or even quarterly periods of payment, might prove successful; in all, an attention to local wants, requiring indeed the exercise of some tact and discrimination, will be found more advantageous to the cause of education than any blind adherence to a traditional or stereotyped formula. We have learnt something when we know whether we are called on to seek a remedy or administer a reprimand, whether we have to deal with a valid reason or an idle excuse for absence.

A more careful scrutiny of "wanted at home" can alone lead us to a satisfactory conclusion. In many instances the plea may be a valid one, and that, strange to say, from the deficiencies of the school. The children of the labourer and the artizan lead a more practical life than the children of the upper classes, and while these have been providing the means and appliances of education for the children of their working brethren, the distinction has been not unfrequently over-looked. It may be useful and needful for the future professional man, to acquire at school a familiarity with the structure of his native tongue, a taste for literature, a knowledge of other languages besides his own, for all these things may be the elements of his future success as the eloquent pleader, or the deeply read student. Similarly, the future labourer or artizan stands in need of a training for his vocation, he needs to acquire a familiarity with the principles, and in some degree with the practice of that employment which is to obtain his future livelihood; and when the school refuses to lay a broad foundation for the future superstructure, to advance a single step in the direction of the future, the parents who employ the boy about the workshop, or the girl in the house, feel perhaps vaguely that it is to supply a deficiency in their children's training that they are "wanted at home." We may have been giving them an education solely after our own notions, calculated to supply our wants, but not theirs. Might not this feeling, which is apt to degenerate into a completely one-sided view of the question, be responded to, by teaching at school the theory, and still more the practice of home-duties and home-occupation?

Our Transatlantic brethren possess in slavery, a "domestic institution" which occasionally involves them in considerable practical difficulties; yet the tyranny over individuals is avenged by the tyranny of the system. We think we can point to a "domestic institution" nearer home which exerts a decided tyranny over education. We fear we must be allowed a liberty in nomenclature in speaking of the tyranny of "Babydom." Babydom (assuming the liberty) we find everywhere setting up its throne on doorsteps, waving defiantly its standard and wielding its sceptre in the form of a parti-coloured "whirligig," issuing from its "courts" in state-carriages and triumphal chariots of every variety of wood and wicker-work, making perpetually a royal progress through crowded streets and shady lanes, and exciting everywhere its subjects against education with a cry "to arms." We leave it to our readers to say how frequently they have been disconcerted by the issue of its peremptory mandate "wanted at home." Yet, we cannot, we feel, raise at once the standard of unmodified revolt; we fear besides that the "born thralls" of baby rather love their servitude, that the "hereditary bondsmen," that is to say the juvenile "nurse-tenders," rather love their servitude, and would not be the first "themselves to strike the blow" for freedom; we are content to acknowledge a sovereignty, but it must be over not a Europe, but an Elba. We are inclined at other times to take a different view, to look on Baby not as invested with tyrannic power, but as an infant Lear, a houseless wanderer, itself the victim of an edict which includes its followers, reading in reality "wanted anywhere but at home." In this spirit we would throw open to it a refuge. In close contiguity with the juvenile, should stand the infant school, and with a view to the benefit of elder brothers and sisters, some of its inmates should be regarded merely as deposits to be "left till called for." There would then be no necessity to "take that child out of the way" in a listless saunter by fields or high-road; the care-taker would be called on in time for an extension only of her duties, learning meanwhile a lesson of neatness and gentleness, while the industrious parent would obtain the desired room and verge for household occupations. We have besides an opinion on the subject of school buildings, (perhaps more especially in agricultural districts,) which we will not do more than suggest to our readers. How often does not "wanted at home" expand into some misty hint of "mother's washing," or the more definite forms of an allusion to "father's dinner." We feel by no means certain that either of these subjects are altogether foreign to school matters, nor convinced but that a little practical introduction of them into schools might not tend, to say the least, towards the satisfactory supply of that continual and equivocal want, "a good plain cook." When the custom is continually met with of children bringing their dinners to school, we have a lurking suspicion that they might advantageously learn to cook them there, and that boys might be worse employed than in digging up vegetables, or in the acquisition of a little manual dexterity in cleaning knives and forks. The additional zest and comfort of an evening meal prepared by such practised artists would impart an additional charm to the reading the entertaining work borrowed from the school-room shelves, and speedily draw a marked distinction between seasons when the children were "wanted at home," and wanted at school. When we ask uneducated parents to set a value on what may seem to them merely theoretical advantages, we must on our part condescend to be practical. It is true that in order to obtain these ends we should require some additions to our teachers' residences, but no unattainable improvements should be admitted over ordinary home-apparatus and appliances. It would, moreover, be necessary that teachers should be found of congenial views, who would be willing and anxious to collect at least their pupil teachers around them, and to train them up in a knowledge of household duties and home life, who would carry out the feeling that school is but a training for the future. Nor do we fear but that such would be found; teachers have not as yet been lacking competent and willing to conduct the routine of the school-room and to seek its higher aims, and we are hopeful that there will be no disappointment when we have gradually arrived at the conclusion, that the teachers' duties are not all necessarily "abroad," but that they, as well as their children, may be "wanted at home."

M. U. R.

Analysis of Sentences.

No. II.

THE COMPLEX SENTENCE.

I. A *complex* sentence consists of a simple sentence, and one or more minor or subordinate sentences, which are dependent on it and connected with it by some grammatical relationship.

II. This simple sentence is called the *principal* or leading sentence; and the subordinate sentences may be called *clauses*.

Remark.—Whenever the word *clause* is here used, it designates a *complete sentence,* but not the leading one. A number of words attached to a preposition, participle, &c., and not forming a complete sentence, are called a *phrase.*

III. Subordinate sentences are of three kinds, the *Substantive,* the *Adjective,* and the *Adverb* sentence or clause.

THE SUBSTANTIVE SENTENCE.

I. *The Substantive Sentence or Clause* takes the place of a Noun in the principal sentence, of which it generally forms a part.

(1.) This may take the place of the *subject*; as, "*That you should wish it,* is reasonable;" or, more often, of a noun in apposition to the subject; as, "*It* is reasonable *that you should desire it.*" It is then often called a *Subject Clause.*

(2.) It may take the place of the object; as, "I know *what he would have*"; "He says (that) *we must go.*" It may then be called an *Object Clause.*

(3.) What are called *Interrogative* Sentences are, in fact, Object Clauses to a principal sentence understood; thus the questions, "Who says so?" "What do you want?" "Why is he angry?" are equivalent to "*Tell me* who says so," (*who* being here a compound relative—*the person who.*) "*I ask* what you want." "*I wish to know why he is angry.*"

II. The Substantive Sentence is generally introduced (*a*) by the conjunction *that*, expressed or understood; but also (*b*) by the relative pronouns, and (*c*) sometimes by relative conjunctions.

(*a*) He says *that* we must go.
(*b*) They told me *what* was true.
(*c*) I know not *where* I can find him.

THE ADJECTIVE SENTENCE.

I. *The Adjective Sentence, or Clause,* like an adjective, *describes* some noun in the principal sentence. "He *that is hasty in spirit* exalteth folly." "The house, *which is to be builded,* must be exceedingly magnificent." "I have found my money, *which was missing.*" It is generally introduced by a Relative Pronoun.

THE ADVERB SENTENCE.

I. *The Adverb Sentence, or Clause,* modifies the predicate, or sometimes an adjective, or adverb, in the principal sentence, in respect of (*a*) time, (*b*) place, (*c*) manner, (*d*) or any other circumstance.

(2.) The following are examples: (*a*) "*When pride cometh,* then cometh shame;" (*b*) "No solitary habitation is now to be seen, *where once the city stood;*" (*c*) "The work was done, *as you intended;*" (*d*) "I will go, *because I am expected;*" "*If my plan is successful,* our operations will soon be concluded;" He persisted in his design, *though he incurred imminent peril.*"

(3.) The Adverb Sentence may be known by its answering to the question, When? Where? How? Why? Under what circumstances? &c.; or by the possibility of substituting for it some adverb, or adverbial phrase.

(4) If, in the above examples, we substitute *then, there, so, therefore, in that case, nevertheless,* for the sentences in italics, the adverbial character of these sentences is at once perceptible.

(5.) Adverb sentences are introduced by the conjunctions, *though, if, lest, unless, because, &c.*, or by the conjunctions, *when, where, as, how, while.*

(6.) *A Nominative Absolute,* with the words depending on it, is usually equivalent to an adverb sentence, and may be considered as such; thus: "*The sun having set,* we returned home;" *i.e.*, "*When* (*or because*) *the sun had set,* we returned home." The same is true of an infinitive, whenever such infinitive implies a purpose, or consequence, as, "I read *to improve myself;*" *i.e.*, "That I may improve myself."

(7.) It will be observed that all these Subordinate Sentences have a Grammatical relationship to the leading or principal sentence. The Substantive Clause is the subject or object in the principal sentence, and the verb may agree with it, or govern it, by the rules of *Syntax*. The Adjective and Adverb Clauses qualify some word in the leading sentence, and thus belong to that word by the definitions of *Etymology*.

(8.) A Subordinate Sentence may be itself complex; that is, it may contain other subordinate sentences depending on it, as it depends itself on the principal sentence.

No. III.

THE COMPOUND SENTENCE.

1. A Compound Sentence consists of two or more sentences, either simple or complex, which are *co-ordinate* with each other, and are united by a conjunction, expressed or understood. Each of the sentences must have its own subject and predicate, and must be quite independent of any other in regard to grammatical construction. "War rages, and the pestilence stalks abroad." "A soft answer turns away wrath; but grievous words stir up anger." "He has commanded, (and) therefore I shall obey; but I fear the result."

2. The following are also Compound Sentences, though they may appear, at first sight, not to answer the definition: "They heard, and were abashed;" "The foolish admired, the wise pitied him;" "Heroes and their feats fatigue me." By supplying the ellipses, however, the completeness and independence of each sentence is at once seen. "They heard, and (they) were abashed;" "The foolish admired (him), the wise pitied him," &c.

3. Occasionally it happens that this mode of analysis cannot be adopted, as in the sentence, "Two and three make five;" in this case the sentence may be regarded as a simple one, having a compound subject, "two and three." A similar remark will apply to sentences like the following, "They acted with boldness and discretion," which is in strictness a Compound Sentence,—"They acted with boldness, and they acted with discretion." It is, however, more convenient in practice to consider it as a simple sentence with a compound adjunct.

4. When, as in the former instances, the subject, predicate, or object, of a sentence is omitted, that sentence is said to be *contracted*. Subordinate Sentences are often compound, as the Object Clause in the following example: "The true-hearted soul thought *a weather stained-face, and a toil-hardened hand, were no marks of disgrace*."

5. The parts of a Compound Sentence are usually connected by the conjunctions *and*, *but*, *or*, and *was*.

I. R.

Class Instruction.

No. II.—SCRIPTURE—(Continued.)

In selecting a Scripture Narrative, care should be taken that the portion allotted for one lesson should be distinct in itself, and short enough to be thoroughly mastered in the time. Many of the incidents of Scripture will be found to contain just enough matter for one lesson; but there is great advantage in having a narrative that will last several lessons; but the evil to be avoided is that of attempting in one lesson more than you can teach with success.

In conducting the lesson, the portion might be read verse about until it has been read several times. Then, with the *books open*, the teacher should interrogate the class on the facts and language, and such explanations should be educed as may be found necessary to the complete apprehension of them. When the children have hold of the thread of the narrative, and a fair grasp of the meaning of its allusions and terms, the books should be closed, in order to give that instruction, combined with vivid picturing, which he may find time for.

At this stage of the lesson, the teacher should bring out, and place in the clearest light, the truth which the narrative illustrates. He should avoid dwelling on minute and unimportant particulars, but should seize and impress the most prominent topics. He should be careful to preserve the unity of the lesson, and admit nothing into it which would divert attention from its chief purpose. At the close of the lesson, he should ask for the truth which the lesson has unfolded, and the ability to state this truth should be the test of his success. Having obtained it, he should close with a short, but emphatic, application.

His success will depend chiefly on his methods. He should base his questions, as much as possible, on the answers received; he should not tell his various points, but should lead his children to discover them. He should be prepared with collateral passages, the bearing of which on his subject should be made clearly out; and he should have ready familiar illustrations that will aid the children in picturing the scene to themselves.

Specimen of Exposition and Interrogation, with books open, on a Scripture Narrative—Matthew 22*c*., 15*v*.—Of whom does this verse speak? It speaks of the Pharisees. What did they do? They went and took counsel. What to do? How they might entangle Him in his talk. Whom did they wish to entangle? Him. Who is meant by Him? Jesus. How do you know? The chapter is about Jesus, his name is mentioned in the first verse. What did they wish to do to Jesus? Entangle Him. *What is meant by entangle?* Who wanted to entangle Him? The Pharisees did. What do the Scriptures teach us of the Pharisees? (From Luke 18c. and Matthew 23c. bring out that they wished *others to think well of them.* Bring out also, from Luke 11c. 53v., Luke 20c. 19v., Matthew 21c. 45 and 46 verses, that the Pharisees were the enemies of Christ.) What do these passages show us? That the Pharisees wished to destroy Christ. What does that show they were of Him? His enemies. Well, they wished to *destroy Christ,* but they also wished the people *to think well of them.* Now what were the people of Christ? Very fond. Yes, they liked Him. What would this make the Pharisees? Very cautious in what they did. Yes; they would like Christ to be killed without it appearing that they had anything to do with it. Well, what did they wish to do now? Entangle Him in His talk. What were they seeking? His death. But they wished the people to think well of them. What do you suppose entangle Him in His talk means? They wished Him to say something that would lead to His being put to death. Why cannot a fly get away from a web? Its foot is entangled, sir. Yes, it tries to escape, but it cannot. What did they wish to do to Jesus? Entrap Him.

OUTLINE NOTES OF LESSON FOR CLASS INSTRUCTION ON MATTHEW xxii., 15—22.

I.—THE SCENE.

A group in the temple. Jesus in the midst. Venerable-looking men approach, treated by the people with respect. Appear as if they wished instruction. Jesus calls them *hypocrites.*

II. Who are they? Pharisees, liked to be thought well of, did not care to be good, only to be thought good. Pharisees and Herodians were enemies to each other, but they both hated Christ, and sought his death. Yet they came as if to be instructed. Here is the reason why Jesus calls them hypocrites.

III. They spread a net for Christ. "Is it lawful to give tribute unto Cæsar or not?" If he say Yes, the people will stone him, for they hate the Romans; if he say No, the Herodians will denounce him, and the Romans will kill him. Observe the artfulness of the question—"Is it?" The answer necessary is simply Yes or No. Thus, under the plea of seeking instruction, they lay a plot for his life. Hypocrites are capable of the worst of crimes.

IV. The answer shows our Lord's *omniscience.* He reads the heart. Illustrate by the cases of Nathaniel and Zaccheus. The people are deceived by the Pharisees, but Christ is not. The answer shows his *wisdom,* "Give unto Cæsar," this would please the Herodians; "and unto God," this would please the Pharisees. The Pharisees and

> Herodians retire—their end is not gained—for Jesus cannot be deceived. Hypocrites cannot gain their end. The searcher of hearts will unmask them.

But we must have a higher aim in Class Instruction, in Scripture, than the communication of Scriptural knowledge. The Bible is a book of peculiar structure; its truths, even the most important and momentous, are interwoven with History, Narrative, Biography, Prophecy, and Precept. In this there must be design. The incidents and stories excite our interest, and serve to fix the truth in our minds; but a full view of the truth can only be obtained by carefully culling its different parts from the other things with which they are mingled. Hence the Scriptures should be studied; and this appears to have been the design of God in making the Bible the sort of book it is. To communicate Scriptural knowledge is important; but to teach a child how to study the Bible for itself is greatly more so.

As the first step, the children should be taught to explain Scripture by Scripture, and thus make it its own interpreter. In order to fix the sense in which words, or phrases, are used, other passages, where they occur, ought to be sought, and, from an examination of these, their import educed. But this principle admits of a more extended application than to the mere elucidation of Scripture phrases. It might be profitably employed to the illustration of Scripture precepts. Suppose, for instance, that the precept occurs, "Pray for them that despitefully use you and persecute you." What illustrations could point and fix it so well as the examples of Stephen and of our Lord?

Another mode of interesting children in the study of the Holy Scriptures, is to compare different narratives of the same transaction. This not only ensures a fuller acquaintance with the truth, but, as seeming contradictions frequently present themselves, the solution of which does not lie on the surface, an exercise is thereby secured as valuable for its moral, as for its mental, results. Let any teacher, who has not tried the plan, take the accounts of our Saviour's birth, and the events connected therewith, as recorded by St. Matthew and St. Luke. Let him get the children to arrange the facts found in the two evangelists, and he will soon find his class most absorbingly interested in the elucidation of the difficulty presented by the statement of Matthew, that Jesus was taken to Egypt, and that of Luke, which represents Him as taken from Bethlehem to Jerusalem, and from Jerusalem to Nazareth. Not to mention that its right solution will explain the seeming anomaly, when compared with the principle of Divine Providence, as shewn in other instances, that "the star, which they saw in the east, went before them, till it came and stood over where the young child was." Compare John 11c., 39—44 verses.

Of other plans of interesting children in the study of the Scriptures, which might be named, we shall only notice one very well adapted for the higher classes, and as a home exercise for revision on Monday morning. It is that of causing the children to collect and arrange the various teachings of Scripture on a given subject, gathering to a focus the scattered rays of truth. The Doctrines, Institutions, and Prophecies, with a few of the places, as Jerusalem,* are well adapted to this exercise.

In conclusion, let the children find and read all the passages to which it may be necessary to refer.

THE EDUCATIONAL IMPORTANCE OF VENTILATION.

We are now prepared to reflect on the educational importance of ventilation. We have seen that about sixty hogsheads of air must enter the human lungs during one day's healthful existence. But we must not for a moment suppose, that if a human being were shut up in an unventilated apartment, containing, upon his entry, sixty hogsheads, or even thrice sixty hogsheads of pure air, he might remain there with impunity the entire day. If no interchange were to take place between the air within and the air without the apartment, severe functional derangement would ensue long before the expiration of the period. This is easy to comprehend.

Let us imagine forty individuals to have entered a room, of sufficient size to receive them without overcrowding. We may as well consider it an ordinary school-room, and the forty individuals, forty industrious pupils. This will give us an opportunity of noticing, among other things, how impure air affects the thinking brain. Suppose them diligently at work, then, in an unventilated apartment, with the door and windows closed. Now, calculating from the same estimates as before, in one minute from the time of entry, each of the forty pairs of lungs has performed eighteen respirations; and with every respiration, a pint of air has been deprived of a fourth-part of its oxygen; and the same volume of carbonic acid has been mingled with the atmosphere of the school-room. In one minute of time, therefore, 40 times 18 pints, that is, seven-hundred-and-twenty pints,—as we are not speaking of adults, we will say *six hundred pints* of the enclosed air, have been deprived of no less than a fourth of their creative oxygen; while an equal volume of the destroying acid is floating in the apartment, and influencing the blood at every inspiration. Or (which will be found upon calculation, to amount to the same thing), in one single minute, as much as *one hundred-and-fifty* pints—upwards of *eighteen gallons* ($18\frac{3}{4}$ gallons) of air, have altogether lost their life-creating power; the deficiency being made up by a deadly poison.

Now, since such a change takes place in one minute, let me beg of you to reflect what change takes-place in ten,—what in twenty,—what in half-an-hour,—what must be the amount of poison which the lungs of these unfortunate victims are inhaling, after an hour of such confinement. And yet how common it is, not for school children alone, but for persons of all ages and conditions, to be shut up in low-pitched badly-ventilated apartments, for more than five, six, or seven hours together. Allow me to remind you that in the human body, the blood circulates once in 2½ minutes. In 2½ minutes, all the blood contained in the system traverses the respiratory surface. Every one, then, who breathes an impure atmosphere 2½ minutes, has every particle of his blood acted on by the vitiating air. Every particle has become less vital—less capable of repairing structures, or of carrying on functions; and the longer such air is respired, the more impure it becomes, and the more corrupted grows the blood. Permit me to repeat, that after breathing for 2½ minutes, an atmosphere incapable of properly oxygenating the fluids which are traversing the lungs, every drop of blood in the human being is more or less *poisoned;* and in 2½ minutes more, every the minutest part of all man's fine-wrought organs has been visited and acted upon by this poisoned fluid—the tender, delicate eye, the wakeful ear, the sensitive nerves, the heart, the brain; together with the skin, the muscles, the bones throughout their structure, in short, the entire being. There is not a point in the human frame but has been traversed by vitiated blood—not a point but must have suffered injury.*

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* See "Papers for the Schoolmaster," Vol. I., page 247.

But to return to our industrious pupils. It is a well-known fact in physiology that the vital fluid is always most busy among the most active organs. For instance, during digestion, there is an unusual flow of blood throughout the organs of nutrition; during muscular exertion, the flow is increased among the muscles; and when the mind is active, the circulation in the brain is augmented.

Now, with the forty inmates of the school-room, what are the organs chiefly called into activity? Evidently, the organs of the mind. The pupils are gathered together on purpose to exercise their brains. It is in the brain, then, of each, that this poisoned blood is most busy. Every mental effort, in an atmosphere such as we suppose these victims to be inhaling, encourages the flow of poison to the brain. The greater their efforts to improve their powers, the greater the injury inflicted on their minds: for, in the words of Liebig, "every thought, every sensation, is accompanied by a change in the composition of the substance of the brain,"† and the brain, by thought consumed, is to be reorganized and invigorated by life-creating blood. Such are the laws of Nature; but if by breaking her laws we vitiate the blood, how can we expect the delicate brain, or any of our fine-worked organs, to be properly reared from a gross material?‡

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* In assuming, here and elsewhere, that the blood performs a round of circulation in 2½ minutes, I adopt a common opinion. There seem, however, strong reasons for supposing that this estimate "is very much underrated" *(Carpenter's Human Physiology*, §§ 724, 725), and "that the whole mass of the blood is carried round the body in about a minute" *(Mr. Grainger's Report on Epidemic Cholera*, p. 92). But whatever the *ordinary* rapidity of the circulation, it should be borne in mind that under the influence of muscular exertion this rapidity is frequently doubled, and perhaps, at times, even *quadrupled.* It is probable that during a period of great bodily activity the whole of the blood traverses the respiratory surface in *thirty or forty seconds.*

† Liebig's Animal Chemistry, p. 9.

‡ As the development of the brain requires a greater amount of pure blood than any other organ of the system, so it suffers more than any other organ from the effects of impure air.

In reference to this school-room, it may be said, that the windows and doors might stand open. At times they might undoubtedly, but (to say nought of the ill-effects of draughts) the weather will not always permit of this. Moreover no kind of ventilation should be considedered adequate, but that which allows carbonic acid to escape as regularly as it is formed. From the apartment where the forty quiet sufferers are exercising their brains, it is evident that there ought to pass out every minute all the carbonic acid formed by expiring six hundred pints of air; and an equal volume of oxygen ought, during the same time, to find an entrance. And this is without taking into the calculation a quantity of unwholesome watery vapour and animal effluvia constantly being exhaled from the lungs and skin; and which, in the case before us, would amount to several pounds in the course of three or four hours.*

We see, then, how essential to education it is, that all apartments should be properly ventilated; and particularly those in which many are in the habit of assembling; and more especially where children assemble for mental cultivation. It has been shown in former lectures, that without due daily exercise and proper diet, sound health is impossible: yet neither food nor exercise is so essential to man's development as the air that he breathes. Without food or exercise, he may enjoy life some hours; he may live some days. He cannot exist a few minutes without air. And yet, what laws are so infringed as the laws of respiration? In our temples of public worship, in our courts of justice, in our prisons, our mines, our factories, and our schools, ventilation was, until lately, almost disregarded—nay, is still, in many places, *entirely* disregarded.—*Lecture by Mr. Hopley.*

Educational Intelligence.

The following circulars have been received by the Principals of the Training Institutions:—

Committee of Council on Education,
Privy Council Office, Downing Street,
11th October, 1854.

Rev. Sir,—I am directed to place in your hands the annexed copies of correspondence concerning the alternative exercise in Latin for Students of the second year.—I have the honor to be, rev. sir, your obedient servant,

R. R. W. LINGEN.

(COPY.)

Kneller Hall, 28th September, 1854.

Sir,—Two of the Students at this Training School wish to be examined in Latin at Christmas instead of Higher Mathematics. I should be glad to know if the examination is to be confined to any definite book or author for candidates at the end of the second year, or whether they are supposed to be ready to translate any common piece of Latin set before them.—I have the honor to be, Sir, your obedient servant,

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* According to the *lowest* estimate of Lavoisier, 20 ounces of waste matter are exhaled from the human skin in 24 hours. This amount, therefore, would be exhaled from the perspiratory pores of 24 persons in 1 hour, being at the rate of 5 *pounds every* 4 *hours for* 24 *persons.* Under the influence of warm rooms this rate would be greatly increased.

(Signed) F. TEMPLE.

The Secretary, Committee of Council on Education.

Committee of Council on Education,
Privy Council Office, Downing Street,
10th October, 1854.

Rev. Sir,—In reply to your letter of the 28th ult., inquiring whether the Students of the second year, who elect to be examined in Latin instead of the Higher Mathematics, will be tried in passages taken from certain specified authors, I am instructed to state that the authors will *not* be specified.

The Latin exercise, being accepted in lieu of one which goes to a considerable extent in mathematics, ought to be of a searching character.

The passages will not be selected with a view to Roman History or Antiquities, but with a view to ascertain whether the candidates can construe (in the full sense of that term) ordinary Latin sentences.

You will see from the passage marked in Mr. Moseley's letter, that the examination at the end of the first year is intended to turn upon language. The Grammar and the Dictionary, therefore, will furnish answers to all that will be asked upon these papers. The questions will not extend as far as paragraph 3, under the head of English Grammar and Composition, for the same year.

The object is to familiarize the student with the structure of a second language. A few chapters of prose, and a few hundred lines of verse, should be read with this sole object, from some classic, by the students who take the Latin Exercise.—I have the honor to be rev. sir, your obedient servant

(Signed) R. R. W. LINGEN.

To the Rev. F. Temple.

Committee of Council on Education,
Council Office, Whitehall,
20th October, 1854.

Rev. Sir,—The returns recently made in claiming payment of the exhibitions due to Queen's Scholars, shew that several of such students have been allowed by the authorities of their colleges to withdraw from training before the end of the year.

I am to state that, in awarding Queen's Scholarships, my lords contemplate the exhibitioner's residence throughout the year, and his examination at the end of it.

Their lordships do not offer exhibitions for one, two, or three quarters, but only for whole collegiate years.

If illness, or other special circumstances arise, they should be reported to my lords at the time.

Their lordships are ready to support the authorities, by refusing to recognise any Queen's Scholar as a certificated teacher, who withdraws himself from teaching before the end of the year which is covered by his exhibition, and my lords look to the same authorities for assistance to enforce this rule as a condition of providing new scholarships out of the public funds. I have the honor to be, Sir, your obedient servant,.

R. R. W. LINGEN.

To the Rev. the Principal.

GLOUCESTER DISTRICT ASSOCIATION.

A meeting to establish this Association was held in the Gloucester National School, 21st October. The Rural Dean occupied the chair. The meeting was well attended by the clergy, gentry, and school teachers. After prayer and a few remarks from the chairman, Mr. W. Jeffery stated the objects and advantages of associations, and proposed that an association be formed. The subject was then fully discussed and rules were drawn up and adopted. The clergy and gentry expressed themselves strongly in favour of associations, and pointed out the desirability of mutual good will and kind co-operation between the clergy and school teacher. The meeting closed with prayer.

BRISTOL CHURCH OF ENGLAND SCHOOLMASTERS' AND SCHOOLMISTRESSES' ASSOCIATION.

The members of this association held their first annual meeting on Saturday, the 6th October last, when the treasurer's accounts were audited, and a report of the first year's proceedings was read by the secretary ; from which it appears that the finances are in a prosperous state, and much which is useful to teachers has been effected.

Papers have been read and lessons given on the following subjects, during the last twelve months.

Papers.—Keeping up a connection with our old scholars—Organization—the Mental and Religious Effects produced on Children by lessons which are not understood – Corporal Punishments—Teaching Wri ing—Teaching Spelling.

Lessons.—Truth and Falsewood—Leaves of Plants—Spanish Armada—Colonization – Reading—Bristol—History of the Saxons – Classification of Animals—Formation of Wind—Release of Peter from Prison—Animals, Order Rodentia.

The association already numbers amongst its members most of the masters and mistresses of schools connected with the Established Church, in Bristol and its vicinity ; and its present very efficient state gives promise of much good for the future.

BENJAMIN WILSON, Secretary.

The following circular has been sent to all the members of the Associated Body of Church Schoolmasters, and is being liberally responded to : —

Trinity District Schools, Marylebone,
October 19th, 1854.

My Dear Sir, —At a time like the present, when all classes are uniting as one man to supply the wants of our brave countrymen who are fighting our battles in the East it strikes me, that we as a class should not be found lacking.

A proposition has been raised, that all parties should give a day's pay towards alleviating those sufferings which are unavoidably connected with warfare. This has been very generally responded to by workmen, and by various other classes. Shall we, who are daily employed in the inculcation of Christian virtue be found behind others in this good work ? I trust not.

I therefore, confidently expecting a cheerful response, venture to appeal to my brethren, and to request them to send to me immediately such contributions as they may feel able to give, both from themselves, and from any other schoolmasters and mistresses they may be able to prevail upon to join in this good work.

As soon as a sufficient sum has been collected, a printed list of subscribers will be sent to all persons whose contributions I receive; but, to save expense, no other receipt will be forwarded.

All monies received will, after deducting expenses, be sent to the Society recently established for the relief of the sick and wounded soldiers in the East,* in the name of the Associated Body of Church Schoolmasters.—I am, dear sir, yours faithfully,

J. J. FARNHAM, Hon. Sec.

EXTRACT FROM THE FIRST REPORT OF THE BRIGHTON AND SUSSEX CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

In carrying out the object of the Association, so far as they have been able, according to the means at their disposal, your Committee have to state, that during the year three Lectures have been delivered gratuitously: one by Mr. Wm. Moon, on "Ancient and Modern Jerusalem," illustrated by a model of his own design and construction; and two by the Rev. F. Trench, M.A., on "Geography, as a Christian study," and on "Good and bad delivery in reading."

The Monthly Meetings held during the year have been well attended. At these Meetings valuable papers have been read on subjects connected with elementary Education, followed by discussions, which have elicited many very valuable practical remarks and ideas. In addition to which, interesting and profitable discussions have been held on topics relating to the management of Children, rewards and punishments, and the responsibilities of the Schoolmaster out of School.

Papers have been read on the following subjects:—"The Advantages of Associations," by Mr. J. D. Trigg; "Geographical Poetry," by Mr. R. Marsh; "Composition and easy Writing," by Mr. J. Rosenberg; "Church Music," by Mr. J. H. Driver; "Teaching Arithmetic," by Mr. E. J. Marshall; "Teaching Grammar," by Mr. G. Jones; "Religious Instruction," by Mr. C. Hill; "The Method of Teaching Reading," by Mr. W. Moon; "The Organization of Schools," by Mr. J. D. Trigg.

Your Committee offered four prizes for the best Essays by Pupil Teachers, Members of the Association, for which twenty-eight competed; and, through the kind liberality of an Honorary Member, the Rev. A. B. Frazer, they were further enabled to offer two Prizes at 10s. each, for the best Essays by the Pupil Teachers, for which eighteen competed.

Respecting the periodicals, which form an important feature in this Association, your Committee have desired to afford to each Member every facility for reading them; if they have not succeeded in every case in giving satisfaction, they hope for a little indulgence, trusting that another year will rectify all irregularities.

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* Many subscribers having expressed a wish that the money should be sent to the "Patriotic Fund," a committee will be selected from the subscribers to decide in the matter.

CIRCULAR LETTER BY THE MINISTER OF PUBLIC INSTRUCTION IN FRANCE.

The Minister of Public Instruction has addressed the following circular to the Prefects:—

"Paris, Sept. 15.

"Monsieur le Prefet,—The crisis which the public health has just passed through, and which happily draws to a close, has occasioned acts of devotedness and abnegation, of which it is important that the Government should have a complete knowledge. Already have I received from some departments reports on the courage displayed in the worst days by most of the public schoolmasters. Rivalling in ardour and charity with the worthy curés of their communes, aiding, and on occasions replacing, physicians and sisters of charity, they hastened wherever their presence could encourage the timid, or their care relieve the sick. Indifferent to their own danger, some have, unfortunately, succumbed to the excess of their zeal rather than to attacks of the malady. As soon as I was informed of this I hastened to send relief to the widows of these honourable functionaries, but I may still be unacquainted with many cases of affliction caused by courageous acts of the kind. I beg of you, Monsieur le Prefet, to address me a special report of the schoolmasters who in your department have particularly distinguished themselves by their zeal, and whose habitual conduct is not open to blame. I desire that those who have shewn such praiseworthy devotedness, and the families of those who have succumbed in affording relief to the sick, shall receive from the hands of the Government a testimony of public gratitude. The country will be happy to learn that in these sad days the first masters of youth have known how to obtain new titles to the esteem with which it is necessary they should always be surrounded. Receive," &c.

NOTICES OF BOOKS.

Village Libraries and Reading Rooms. By the Hon. Samuel Best, Clerk, M.A. —Groombridge.—A lecture delivered at St. Martin's Hall, in connexion with the Educational Exhibition of the Society of Arts. Much praise is due to the Hon. Clerk for coming forward, and facing one of the great practical difficulties standing in the way of popular education. Every one who has thoughtfully regarded the prospects of popular education cannot but have mourned over the fact, that the majority of the children of the working classes finish their school life, not merely uneducated, but positively with but incomplete instruction. This difficulty is not to be met by discussing the question of improved school-keeping, or of lessened fees; for were the best instruction offered gratuitously, the children would yet be taken from school, especially in the rural districts, where the small weekly earnings of children form no inconsiderable addition towards the support of the family. In this letter the writer sets forth, not a mere scheme, but the result of actual trials, to secure for working men such educational advantages as their tastes and circumstances admit of. Those of our readers who have schools in the more thinly-populated districts should at once obtain this lecture. The Appendix, containing rules and other documents, will prove of great value to parties proposing to make an effort to establish Village Libraries or Reading Rooms.

Practical Instruction in French. By G. Ch. F. Werner, Ph. D., M.A.—Longman and Co.—Dr. Werner is the Professor of German and French in Cheltenham College, and for its use this First Course of Practical Instruction has been compiled. The arrangement is based on correct principles, and the entire course is synthetic in character. In the short lessons which commence the course the student is introduced to familiar words, and the principal forms of a few common verbs. These are at once put into use for the construction of simple sentences. By a carefully graduated series of steps the student is led on, and by the time the course is completed the essentials of French Grammar have been mastered, and applied in elementary composition. At the latter part of the book is a short series of approved reading lessons. Perhaps the best recommendation of Dr. Werner's "Practical Instruction" is found in the fact of its producing most satisfactory results.

Lecture on Respiration. By Thomas Hopley.—Churchill.—One of a series of plain and simple lectures on the Education of Man. "Mr. Hopley's aim, in undertaking these lectures, is twofold: First, to set before the eyes of such of the upper and middle classes of society as will favour him with a hearing, the fearful effects of certain errors existing in the systems under which their children are for the most part trained—errors requiring but determination among heads of families to be at once eradicated; and secondly, to show to all whom he may have the power to address, something of the physical and mental condition of the national poor, who can never be rescued from the sin and misery which are at present forced upon them save by the energetic strivings of large bodies of men and women, who will work, not for the sake of pay or human applause, but through love of God and their neighbour." This lecture is characterised by great clearness of exposition, and its statements supported by references to the best authorities. We wish it a wide circulation, and would especially recommend it to the attention of teachers. There is good ground for belief that many Schoolmasters have an improved knowledge on the subject, but some are to be found who want either a better knowledge, or an improved practice. It is not an uncommon thing to find a polluted atmosphere when a school is entered, even where considerable expense has been incurred for ventilation. By way of pressing this matter on the attention of our readers, we elsewhere give an extract of Mr. Hopley's lecture. Mr. Hopley promises a cheaper edition of his Lectures.

Tabular Exercises in Elementary Arithmetic, by P. H. Harding.—National School Depository.—Mr. Harding thus sets forth the advantages of his system:—"1. It is decidedly economical; since it contains 1728 exercises in the four simple rules, for the fraction of a penny. 2. It is easily comprehended by children. 3. It may be used simultaneously, as well as individually, and not two pupils doing the same exercise at the same time. 4. The arrangement of lessons can be easily varied according to the different practice of teachers. 5. The tables may be used as copies for figures. 6. It will be found very essential in obtaining home work. 7. It registers the daily progress, and thus stimulates the individual exertion 8. It economises the time of the teacher." We do not happen personally to know the value of this system as ascertained by actual trial, but we are told that it is approved of by many of the Metropolitan teachers, a recommendation of great value. The scheme has the merit of great simplicity, and as the cost is so very trifling, no teacher feeling a want of arithmetical exercises need be long before making trial of Mr. Harding's plan.

A Catechism on the Collects of the Church of England, by Mary Jacob.—Wertheim and Co.—Though no one can question the labour required to produce this little book, many will its necessity, though "intended as a child's own book." Its object is to show children the Scriptural nature of the collects; the mode of accomplishing this object is by a series of questions on the text, answered mostly by Scripture quotations, ending in each case with a paraphrase of the collect in rhyme. Although we cannot commend this book for children's use, it may be read by teachers with profit.

Crombie's Gymnasium.—Simpkin and Co.—This work has so long stood amongst the serviceable aids to Latin Prose Composition, that we are glad to find it still maintaining its ground by the side of more modern text-books, with newer systems. The course, through which the student is carried, is one which has always seemed to us admirably calculated to give a most valuable return to honest labour. Assistance is given sufficient to guide in the right path, if not to smooth the way. The readiest road is not always the surest, a maxim eminently true when the object is the attainment of a language. One of a beginner's first and greatest difficulties, that of ascertaining the limits of a word's meaning, is met by very judicious discussion of the more ordinary synonyms. We can, from experience, recommend the book to all whose aim it may be to write pure, vigorous, and idiomatic Latin Prose.

Correspondence.

Sir,—In answer to the inquiry of M. in the last number of the "Papers," I would say that the "simultaneous teaching of Arithmetic is to be preferred in our National Schools."

In the first place, it economises the time and labour of the teacher, enabling him, not not only to get through a great amount of work in a comparatively short time, but to exercise that watchful care and supervision over the whole school, which is so necessary to its well-being.

Again, it encourages in the scholars that healthy spirit of emulation which is so favourable to their advancement. Let a boy have an arithmetical question to work out by himself, in nine cases out of ten he feels careless and indifferent about it: his *isolation* prevents him taking any interest in it.

No doubt there are disadvantages attending this method as well as any other (for what method is perfect?) A careful classification, however, and promotion according to ability, will remove the one alluded to by your correspondent M.

In conclusion, I would say that, Arithmetic should not be taught by *rule*. The teacher's object should not be to make his pupils do their work the *shortest* way, but the *best* way. Every example should be an exercise for the *reasoning faculties*. If it is not, half its value is lost. It is, in my humble opinion, much to be regretted that this view of arithmetic is not more prominently brought out in the manuals now in existence. Tate's "First Principles" is evidently a step in the right direction

I am, &c.,
NUMERUS.

Pendlebury, Oct. 11th, 1854.

Sir,—The quotation from Mr. Horner's Factory Report, in your last number, clearly shews the benefits to be derived by the children who attend factory schools as "half-timers;" but these advantages would be much greater if the mill-owners would agree to employ no children but such as had made a certain progress in learning—at least, so far as to be able to read monosyllables, and to write single letters and figures from dictation.

There are from thirty-five to forty factory children attending my school, and some of those who could read a little, on admission, have made very creditable progress indeed; but when we get children of ten or eleven years of age, who have never had previous training of any kind, and whose parents try every scheme to enable them to pass as "fulltimers" long before they are of age to do so, what lasting good can we hope to effect? Too often, some months pass over before any perceptible progress is made, and then, perhaps, just as they begin to make a little improvement, they "pass the doctor," and, the probability is, they grow up as ignorant as most of their predecessors. Such children are taught by their parents to look upon the school as an evil, forced upon them by the laws, and the sooner they are rid of it, the more they will earn, and the better it will be for themselves.

Despite the above drawback, however, it is my firm conviction that the "Factory Act" is working much good in the land; and I am convinced that it only requires the active co-operation of the mill-owners, in the way suggested above (either voluntarily, or by a legislative enactment), to render the system very effective. I do not anticipate that any difficulty will be experienced in obtaining "hands" duly qualified, especially if coal-owners and others, interested in youthful labour, agree to the same plan. The parents would be aware that a *certain amount of education is absolutely necessary*, and would thus be led to place a value upon it; and this is quite within their reach when it can be obtained at a cost of a penny or two-pence per week. I am, Sir, &c., &c.,

W. P.

DECIMAL COINAGE.

London, Oct. 12, 1854.

Sir,—I trust I shall be pardoned if I again intrude upon your pages. I cannot yet see how the difficulty I have referred to in my letter of last month is to be surmounted in the ordinary transactions of business; for since 19s. 4d. cannot be represented *exactly* in *mils* (not *cents*, whose value would be 2·4d. each), no amount of correction such as you propose will prevent great confusion and mistrust in calculations based upon mere approximations, and thus be the means of opposition to the introduction of a decimal coinage into this country—leaving out of the account the injury that must necessarily be done to the great mass of our poorer population by the interference with the copper coinage at present in circulation. Allow me to compare the amount of work which is required, on your own shewing, to obtain by decimals the correct answer to the following question:—

4,253 articles at 19s. 4d.

BY DECIMALS—

19s. 4d.=966·6666 *mils nearly.*
4253

28999999
483333333
1933333333
38666666666

£4111·2333333=£4111 2 fl. 33⅓ mils (or £4111 4s. 8d. present money).
(In all 72 figures are employed).

BY PRACTICE—

10s.	½)4253			
		2126	10	0
5s.	½)	1063	5	0
3s. 4d.	⅓)	708	16	8
1	1/10)	212	13	0
		£4111	4	8

(47 figures.)

BY PENCE—

4253
19s. 4d. = 232d.

8506
12759
8546

12)986696

2,0) 8222,4 8
£4111 4 8 (45 figures.)

Trusting I shall be favoured by your insertion of the above in your valuable publication—I am, &c.

P. M. P.

uable Papers, to ask some of my
me, as I have hitherto, after much
r myself:—
condensation, of the saturated air,
ons of the atmosphere?
I am, &c.,
A SCHOOL TEACHER.

sking questions on the subject we
will ask as many questions as I ask
discipline of the section; for they
or keep their seats often. I should
nform me how to proceed. More-
of age, whom we are teaching to
hey are not able to do it without the
r is not the faculty which is required
re developed?
J. R.

BLE.

spread an ample table for them
reason, we were to make a right
es, avoid taking too much, our

eeds of wheat, when cleared of
er called flour. We mix this
we add an infusion of *yeast*,
vegetable matter in a state of
ferment; bubbles of carbonic
of ginger beer; and the result
d consequently more palatable,
.
place, 45 per cent., or nearly
even when stale. The solid
d gluten—there being only a
which is the most nutritious in-
d about *six* per cent. Were we
a larger proportion of gluten,
more of this material than the
oth thrifty and healthy to use

ot much used as food for men in
orridge of oatmeal are the chief
tains nearly twice the pro-
ortion of fatty matter, and less
wheaten-flour. The vigorous
m the verdict of science on this

hree-fourths of it is water. Of
ry small proportion is gluten.

There is, therefore, comparatively little sustenance in th potato; and where it is almost the only article of diet, as among the Irish peasantry, as much as five pounds of it is required for the meal of a man or woman.

We can thus see that is a great mistake to suppose that we make a saving by taking food which is cheap in proportion to weight. The value of farinaceous food mainly depends on the amount of gluten contained in a certain weight, this being the most nutritious element. We wonder at the great weight of turnips raised on a single acre of good land; but in every ton there are only two hundredweights of solid food; the rest is merely water.

The *Onion* is a very nutritious root, for its dried matter is in fully a fourth part composed of gluten. The Spaniard eats it with a crust of bread, and must find in it sustenance as well as relish. *Cabbage* has even a larger proportion of gluten, justifying the great use made of it by the Scottish peasantry in their mutton-broth, With potatoes and cabbage together, the Irish peasantry make what they call *kol-cannon*, which may be considered as a judiciously arranged mess, since the abundance of gluten in the cabbage makes up for its want in the potato.

Besides bread and potatoes, there is a piece of BEEF upon the table. A bullock has been reared upon the neighbouring fields, and now he has rendered up the herbage in the form of his own flesh—the only form in which we could use it as food. And what does beef consist of? Strange to say, the ingredient of chief value to us being the muscular substance called *fibrin*, is nearly the same composition and properties as *gluten*, the most nourishing element in farinaceous food. But in a hundred parts of lean beef, nineteen are fibrin, while in wheaten-bread only six are gluten; so there is as much sustenance in one pound of lean beef as in three of wheaten-bread. It is remarkable, however, that more than three-fourths of the weight of beef is water, mingled slightly with blood and other juices.

Mutton differs very little from beef in its composition. *Veal* is different chiefly in its generally containing less fat; *pork*, in its containing more. The deficiency of the meat of *poultry* is in fat, which is, to a certain extent, a useful ingredient. In an *egg*, upwards of two-thirds is water, while of the nutritious albumen much like gluten and fibrin in character there is about a seventh and of fat a tenth. Of *milk* from the cow, nearly nine-tenths is water, and only the remainder nutritious. The best *cheese* is made of entire milk, or of milk from which a small portion of the cream has been removed; it is then nutritious, though not favourable to the action of the bowels.

Beef and mutton are usually prepared by boiling, by baking or by roasting. In roasting, from the great evaporation of the water, and the melting away of the fat, meat loses more weight than by boiling—not less than a third, while by boiling, rather less than a fourth is lost. It is an error to beat or squeeze meat before cooking, for by the loss of the juices, it is rendered comparatively tasteless. The first step is to subject it to a sudden and strong heat, because thereby the fibres contract and keep in the juices. Hence, for boiled meat, the pot of water should be boiling before the meat is put in; unless, indeed, when beef-tea or barley-broth is wanted, the opposite object being then sought; namely, to extract the juices.

Guided merely by their sensations, men have, in the course of time, come to find, what science now confirms, that it is not good to live too much on one kind of food, and that there are certain articles which it is well to put together in diet. To vary our fare, and bring certain things together for our meals, is attended with the good effect of making the abundance of fat, starch, gluten, or other substance, in one article, compensate for its want in another. Thus, the fat of butter and cheese makes up for its small proportion in common bread.

The fat of bacon, in like manner, remedies its deficiency in eggs, and abates the constipating quality of the latter article. Bacon is, for the same reason, relished with fowl and veal.

Your meals should be three—
Breakfast, dinner, and tea:
No more if you wish a long liver to be.

Cheese and pastry to digest,
Puts the stomach to the test;
Much of one thing, or too many,
Scarcely suits the powers of any;
Note well that the lightest rations,
Leave the pleasantest sensations.

If you wish your life to last,
See you never eat too fast;
Reason why, if you should question,
Thorough chewing helps digestion.

After meat, half-hour take rest,
Thus the better 'twill digest;
Spend the time in lively chat,
Welcome business after that.

—*Lesson Book on Common Things.*

REVIEW OF THE DEFECTS IN THE PRESENT MODE OF TEACHING GRAMMAR.

It is proper, in the next place, let us call your attention to the defects in the classification, naming, and definition of words in our common grammars. These defects also appear to have arisen from the same cause of confusion already mentioned—from regarding words, and commencing with the consideration of words, instead of propositions, as the units of language. When we commence our grammatical analysis from the proper point of departure—considering first the proposition and its parts as the unit of language, because an organised form of expression of a single thought—we come naturally to classify the words which are the constituents of the proposition in direct reference to the distinct functions which they severally perform in the structure of this organised expression.

Now, in the common treatises on grammar, this true principle of classification is never avowedly recognised. A few, indeed, of the common definitions are founded on the functions of the classes of words to which they are applied—the conjunctions, for example; and we might, perhaps, include the definition of *adjectives* and *adverbs* as partly conforming to this principle of classification and definition. But, generally speaking, the most important classes of words are defined rather in reference to their significance—that is, in reference to the matter, the conception which they express—than to their grammatical functions, or the part which they perform in the structure of language; or, in other words, in the construction of propositions. Such definitions we hold to be altogether irrelevant to the purposes of grammar; and when mixed, as they are, with definitions wholly or partly founded on the recognition of grammatical functions, they tend only to confuse the mind of the student—a natural result of the confusion of thought in the author's mind, which, in the first place, occasioned the adoption of these discordant and wholly inappropriate definitions.

An an example of improper classification, we may present the case of the *articles—an* or *a*, and *the*. These determinative words have been erected into a distinct class by most of our grammarians, and, in the order of arrangement, have been elevated to the honour of taking precedence of all the other classes of words. This precedence was originally given to the Greek article, because it suited the convenience of the early grammarians to employ this word to designate the gender of nouns. For this purpose, they found it necessary to exhibit the inflection of the article (for the Greek article, unlike ours, is an inflected word) before exhibiting the inflections of nouns. Hence this little word was arranged and treated in grammars before the nouns, and consequently before all the *parts* of *speech*. Modern grammarians have generally (there are some honourable exceptions) been so blindly submissive to the authority of their early predecessors, that, though in modern languages no longer employed in our grammars and dictionaries to mark the genders of nouns, they have allowed the so-called articles to retain the same place of distinction as the leading part of speech. Yet these little words, THE, and AN or A, have, in fact, not the shadow of a claim to be distinguished as a class from the other determinative words employed in our language. The solemn, laborious efforts made to account for the high distinction bestowed by the grammarians on these small determinative words, afford an instructive example of talents and industry wasted in a vain pursuit—in accounting for a distinction made in classification, where in fact there exists no difference, and for a precedence accidentally conferred, without any design of indicating a claim to pre-eminence. *

We might present, as another instance of improper classification, the arrangement of the forms called *infinitives* and *participles* as parts of verbs, though their functions in the construction of propositions are altogether different from those of verbs; the *infinitives* performing some of the chief functions of nouns, and *participles* the function of adjectives. While this arrangement is adopted, it is absolutely impossible to furnish a correct definition of the verb, that is, a definition presenting its peculiar grammatical function, since such definition cannot include infinitives and participles.

As examples of definitions resting on false principles, on specific differences in the meaning instead of the grammatical functions of words, we may adduce the definitions commonly given of the two principal parts of speech, or classes of words—the *nouns* and the *verbs*. "A substantive, or noun, is the name of anything that exists, or of which we have any notion."—(*Murray.*) "A noun is the name of any person, place, or thing."—(*Bullions.*) "A substantive, or noun, is the *name* of a thing; of whatever we conceive in any way to *subsist*, or of which we have any notion."—(*Lowth.*) These definitions, if definitions they deserve to be called, are all irrelevant to grammar. In forming them, their authors had in view the nature of the conceptions which nouns express, not their functions in construction. They may be regarded as rather clumsy attempts to include, in a brief form of words, all the classes of objects represented by nouns. There is not in them the slightest reference to any of the functions which nouns perform in the structure of language—in the formation

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* See "Exposition of the Grammatical Structure of the English Language," § 158, pp. 514-531.

PAPERS FOR THE SCHOOLMASTER.

No. 46. DECEMBER 1, 1854.

Queen's Scholarships.

Our readers will have observed that the laws which regulate the disposal and conditions of these prizes are not framed after the model of the Medes and Persians, and that the Minutes of the Government are no more gifted with permanence than those of Time. Patience, however, is a high attribute of the Christian character, and in the present infant state of popular education, it is content to witness these fluctuations, which increasing experience renders necessary, in the hope that the result obtained at some cost will become the more valuable. And amidst the many essential alterations, sometimes adverse, and sometimes favourable to the apparent interests of Pupil Teachers, there is no reason to believe that the present balance is against them. The removal of that restriction which last year limited the number of Queen's Scholarships to 25 per cent. upon the whole number of students in any given Normal Institution, was an immense gain to the whole class of Pupil Teachers. The value, however, of a Queen's Scholarship, as a test of superior merit, moral and intellectual, was diminished, and the consequence was, that while a hardship was removed from many excellent candidates who yet fell short of the ancient standard, a rather wide door was opened to inferior and less diligent, and therefore less meritorious Pupil Teachers. Of this result the authorities of our Normal or Training Colleges became early conscious, and with more or less unanimity they have represented to the Council office, that a certain extension of the privilege of competing for Queen's Scholarships to those who have not passed an apprenticeship as Pupil Teachers, would produce a favourable result. In that opinion, expressed in the memorial we publish in this number, and in the new regulation to which it has given birth, we see nothing with which we do not fully concur. The higher class of Pupil

Teachers can suffer nothing whatever from such a regulation. Those only can suffer who allow candidates with infinitely smaller privileges than they themselves have had, to claim the prizes due to superior industry and qualifications. Monopoly of privilege tends to check the spirit of self-improvement, and if only good faith is kept with every Pupil Teacher who merits encouragement, the cause of education cannot but gain by whatever tends to hold in check unpromising students, who have fallen short of their earlier privileges as Pupil Teachers. As it is, the Principal of a Normal College will have had opportunity of observing how far any of his Queen's Scholars are inferior, in both moral and mental calibre, to other, and, it may be, older and more influential students; and if he is now enabled to encourage the one, though it should be to the discouragement of the other, assuredly such an alteration in the bestowal of Government prizes will be productive of unmingled good.

Young men of high character and mature principles, anxious to devote their life to a wide sphere of usefulness, whose moral influence over younger students is of inestimable value in a Training College, may now seek admission with greater confidence. The supply of this class, whose presence is needed as a make-weight against the influx of a numerous class of younger students, was arrested by the recent regulation, which condemned a Master, whose residence at a Training School had not extended over twelve months, to a third-class certificate for some years. But the still more recent legislation we present to-day, which places him at the expiration of a year on equal terms with a Queen's Scholar of the same standing, and allows him to enter the lists with him, cancels the discouragement, and greatly enhances the position of an ordinary student. It will be observed that the adjustment of this new machinery is left to the Principal, who will in no case be likely to recommend any such candidate for a Queen's Scholarship, *to the prejudice of one single meritorious Queen's Scholar*, nor indeed any, whose high moral and religious influence is not likely to tell favourably upon the internal life of the Normal School.

Decimal Coinage.

No. III.

In our two former articles, in which we endeavoured to interest our readers on this subject, we adopted as our principal current coins, *pounds*, *florins*, and *cents*. We supposed a pound to be divided into 10 florins, and a florin into 100 cents. It is right, however, to state that another and perhaps more popular division has been assumed by the majority of writers, which it will be necessary to make distinct before the subjoined extracts will be understood. The only difference consists in this, that the value we have given to the *cent* is given on this system to a coin called a *mil*, while another coin ten times the value of a mil is called a *cent*. Thus on this arrangement the table would stand—

10 florins make 1 pound (£1)
10 cents “ 1 florin (1 fl)
10 mils “ 1 cent (1 c)

It is clear, therefore, on this plan the same great advantage will be derived in the operation of reducing higher denominations to lower, and the converse. The reader will only have to remember the change of value assigned to the cent. Thus, £45, 6 florins, 5 cents, 4 mils, will simply be written £45.654, or 45654 m.

Ex. Multiply £76, 8fl. 3m. by 63.

Observing that there are no cents we may adopt either of the following modes:—

£76.803	76803mils
63	23
230409	230409
460818	460818
£4838,589	4838589m.

Ans. £4838 5fl. 8c. 9m.

The following extracts are taken from a pamphlet, issued recently by the "Decimal Association." It is written by Professor De Morgan:—

1. The word *decimal* means *of or relating to ten*; if there were a pure English word answering to it, we should have *tennish* or *tenly*.

2. The common way of writing numbers is *decimal*, so called because, in proceeding from right to left, each change of place augments value *tenfold*. Thus, in 11111, each unit is made to mean ten times as much as the one on the right of it.

3. It is often supposed that the word *decimal* relates only to *fractions*, because we hear much of decimal *fractions*, and little or nothing of decimal *numbers*. And in like manner we often speak of a round table, and seldom of a round apple: because all apples are round, but not all tables. We never use any but decimal numbers; we do use other than decimal fractions.

4. The pound sterling is not divided *decimally*. The first step, division into 20 shillings, is closely related to decimal division, and capable of being converted without loss of the shilling. Let *two* shillings be *one* florin, and then *ten* florins will make a pound. But the division of the shilling into 12 pence is not at all related to decimal division.

5. In the *simple* rules of arithmetic, we practice a pure decimal system, nowhere interrupted by the entrance of any other system: *from column to column we never carry anything but tens.*

6. In what are called the *compound* rules of arithmetic, relating to—pounds, shillings, and pence—miles, yards, and inches—&c., we practice what is in each case a mixture of systems; each in itself more difficult than the pure decimal system, and each rendered still more difficult by admixture with others.

7. Every one who knows anything of arithmetic, to say nothing of those who have been prevented from knowing anything of it by the very thing we are going to mention, is aware of the complexity and tediousness of our existing systems of weights, measures, and coinage. Every one acknowledges that if an educated community had to begin again, all should be decimal, or *in tens;* that is, each larger weight, measure, or coin, should be ten of the next smaller.

8. The advantage of a decimal division, or *perfect and entire exclusion*, in reckoning, *of all subdivision*, *except into tens*, is that the *common* and *fundamental* arithmetic, which is seen in the first rules learnt of addition, subtraction, multiplication, and division, is the *only* arithmetic required. Every difference of operation between the simple and compound arithmetic is done away with.

9. All the advantages of a decimal system spring out of this one advantage just named: that is, all the advantages for which we here advocate the introduction of a decimal coinage. Any other advantages which there may be, would not of themselves be enough to induce us to desire the change. There will be a great saving of time in business calculations, and a great saving of time in education. No one has attempted to deny the assertion made, that of every hundred hours employed in education *of all kinds*, five at least are thrown away by the complexity of our system of accounts. A decimal coinage would save a great deal of labour for other purposes, and therefore would create a great deal of wealth: it would set free a great deal of time in education, and therefore would create a great deal of intellectual power.

10. As an instance of the identity of simple and compound arithmetical process, when divisions are solely into *tens*, let one pound sterling be 10 florins, let one florin be 10 cents, let one cent be 10 mils. Multiply together the numbers 793 and 438, in the common way—

```
   793
   438
  ----
  6344
 2379
3172
------
347334
```

This is all the *operation* required in the following questions:—

If one yard cost 7 florins, 9 cents, 3 mils, how much do 438 yards cost? *Answer*, £347 3 fl. 3ct. 4 m.

If £1 make a profit of 7 fl. 9 ct. 3 m., what profit will £4 3 fl. 8 c. make? *Answer*, £3 4 fl. 7 ct. 3 m. [and 34-100ths of a mil, for which there will be no coinage.]

If a bankrupt estate pay 4 fl. 3 ct. 8 m. in the pound, what dividend will be paid on a debt of £79 3 fl.? *Answer*, £34 7 fl. 3 ct. 3 m. [and 4-10ths of a mil.]

It is very obvious that corresponding questions, proposed in our existing system, would require many more figures to be written down. And, more than this, the mental operations, which are not written down in either, are much more difficult in the existing than in the decimal system.

(To be continued.)

Analysis of Sentences.

No. III.

EXAMPLE I.

————————————“ I have ventured,
Like little wanton boys, that swim on bladders,
These many summers in a sea of glory;
But far beyond my depth; my high-blown pride
At length broke under me; and now has left me,
Weary, and old with service, to the mercy
Of a rude stream, that must for ever hide me.”

ANALYSIS.—This is a compound sentence, consisting of four co-ordinate sentences, connected by the conjunctions *but* and *and*, &c., expressed or understood. The first of these, “I have ventured &c. . . . . glory,” is complex; and the same may be said of the fourth, “It now has left me, &c. . . . . hide me.” The second and third, marked below *c* and *d*, are simple.

a I, like little wanton boys, have ventured these many summers in a sea of glory;	Principal sentence to *b*, co-ordinate with *c*, *d*, and *e*.
b *That* swim on bladders,	Adjective clause to *a* (describing “boys.”)
c *But* (I ventured) far beyond my depth;	Sentence co-ordinate with *a*, *d*, and *e*.
d *And* my high-flown pride at length broke under me;	Sentence co-ordinate with *a*, *c*, and *e*.
e *And* (it) now has left me, weary, and old with service, to the mercy of a rude stream;	Principal sentence to *f*, co-ordinate with *a*, *c*, and *d*.
f *That* must for ever hide me.	Adjective clause to *e* (describing “stream.”)

EXAMPLE II.

"That intensity of dislike which arises at small differences, and which even the most philosophical minds are apt at times to feel, is a great proof of the tyrannous nature of the human heart, which would have every other creature cut out exactly after its own pattern."

ANALYSIS.—This is a complete sentence, consisting of one principal sentence, and three adjective clauses, two to the subject, and one to an adjunct of the predicate.

a That intensity of dislike is a great proof of the tyrannous nature of the human heart,	Principal sentence to *b*, *c*, and *d*.
b *Which* arises at these small differences,	Adjective sentence to *a*, co-ordinate with *c*, describing subject.
c *And which* even the most philosophical minds are apt at times to feel,	Adjective sentence to *a*, co-ordinate with *b*, describing subject.
d *Which* would have every other creature cut out exactly after its own pattern.	Adjective sentence to *a*, describing "heart," in the enlargement of the predicate.

EXAMPLE III.

————————"Mighty winds,
That sweep the skirt of some far-spreading wood
Of ancient growth, make music not unlike
The dash of ocean on his winding shore,
And lull the spirit while they fill the mind;
Unnumbered branches waving in the blast,
And all their leaves fast fluttering, all at once."

ANALYSIS.—This sentence is compound, consisting of two sentences, united by *and*, which are both complex. The whole may be considered as also complex, having two absolute clauses, which are connected with the compound sentence going before.

a Mighty winds make music not unlike the dash of ocean on his winding shore,	Principal sentence to *b*; co-ordinate with *c*.
b That sweep the skirt of some far-spreading wood of ancient growth,	Adjective sentence to *a*, describing subject.
c *And* they lull the spirit	Principal sentence to *d*, co-ordinate with *a*.
d *While* they fill the mind;	Adverb sentence to *c*, modifying its predicate.
e Unnumbered branches waving in the blast,	Absolute clause to *a* and *b*, co-ordinate with *f*.
f And all their leaves fast fluttering, all at once.	Absolute clause to *a* and *b*, co-ordinate with *e*.

EXAMPLE IV.

> "This is the state of man: To-day he puts forth
> The tender leaves of hope, to-morrow blossoms,
> And bears his blushing honours thick upon him;
> The third day comes a frost; a killing frost;
> And when he thinks, good easy man, full surely
> His greatness is a ripening, nips his root,
> And then he falls, as I do."

Analysis.—This is a complete sentence, consisting of a leading sentence and a compound substantive clause, in apposition with the subject, formed of six co-ordinate sentences, of which the two last are complex.

a	This (state) is the state of man:	Principal sentence to *b*, *c*, *d*, *e*, *f*, and *i*.
b	To-day he puts forth the tender leaves of hope,	*b*, *c*, *d*, *e*, and *f* are subject clauses to *a*, and co-ordinate with each other, *f* being also principal sentence to *g*.
c	(and) To-morrow (he puts forth) blossoms,	
d	*And* (he) bears his blushing honours thick upon him;	
e	*And* the third day comes a frost, a killing frost;	
f	*And* (it) nips his root,	
g	*When* he good easy man, thinks	Adverb clause to *f*, principal to *h*.
h	*(That)* his greatness is full surely a ripening,	Object clause to *g*.
i	*And* then he falls,	Subject clause to *a*, co-ordinate with *b*, *c*, *d*, *e*, *f*, principal to *j*.
j	*As* I do.	Adverb clause to *i*.

EXAMPLE V.

> ———————"The broad circumference
> Hung on his shoulders like the moon, whose orb
> Through optic glass the Tuscan artist views
> At evening from the top of Fesole,
> Or in Valdarno to descry new lands,
> Rivers, or mountains, in her spotty globe."

Analysis.—This is a complete sentence, consisting of a leading sentence, and an adjective clause, which is itself complex.

a	The broad circumference hung on his shoulders like (to) the moon,	Principal sentence to *b*.
b	*Whose* orb, the Tuscan artist views through optic glass at evening, from the top of Fesole or in Valdarno,*	Adjective clause to *a*, principal to *c*.
c	*(That he may)* descry new lands in her spotty globe.	Adverb clause to *b*, co-ordinate with *d* and *e*.

d (*And* *that* he may descry new) rivers (in her spotty globe),	Adverb clause to *b*, co-ordinate with *c* and *e*.
e *And* (*that* he may descry new) mountains (in her spotty globe).	Adverb clause to *b*, co-ordinate with *c* and *d*.
	(Or these three adverb clauses may be considered as contracted into one compound clause.)

Note.—The connecting words are all in italics.

J. R.

Notes of Lessons.

OUTLINE NOTES ON PSALM XL., v. 2.

I. EMBLEM.

1. Describe a tropical clime and its wild animals, strong and fierce; to catch them, pits are dug; these pits are *traps*.

2. Picture out the locality and scenery of one of these traps; it must be in the haunts of wild animals; such animals like concealment, hence they lurk in bushes, long grass, &c. Now see the *trap*. In the midst of a comparative waste, there is one spot surrounded by the luxuriant productions of a tropical clime; this spot, so enticing, is the *mouth* of the pit.

3. Caught in the trap, the animal is shut out from all the enjoyments of life and liberty.

4. Describe the state of the pit; so many animals have perished there, that the bottom of the pit is a mass of putrefaction; hence it is a horrible pit, and any one caught in it will die a horrible death.

5. The pit dug in clay, nothing to take hold of, no firm standing, no means of escape; and therefore help must come from without.

II. APPLICATION.

1. Sin—a trap for the soul, set by our enemy the devil.

2. Sin very alluring, enticing; seems more desirable, at the time, than anything else; so to Eve, "When she saw that the tree was pleasant, and to be desired."

3. Sin—a pit of foul thoughts, hateful deeds, malicious words, followed by death. Describe the death of sin, separation from all that is lovely, beautiful and good, on earth and in heaven; shut up with all that is foul, vile, and abominable.

Picture out vividly the contrast between *in* the pit and *out* of it, between *life* and *death*. Let the waters of life, in its thousand streams gushing from the throne of God, sparkle before their eyes, let the eternal anthem and chorus thrill in their ears; and then let the darkness of hell be felt, made more horribly dismal by the clank of the chain, the gnash of rage, and the wail of despair.

4. From Rom. vii., draw out, that a sinner under conviction of sin feels as if *in* this horrible pit; he knows that his companians *now* are foul thoughts and desires, and he expects nothing better than eternal death.

5. Show that a sinner in this state makes many efforts towards deliverance; he refrains from sin, reads the Bible, prays, fasts, performs penance—but all are of no avail. Deliverance must come from without. David says—"*He* brought me up also out of the horrible pit." Paul says "O wretched man that I am! who shall deliver me from the body of this death? I thank God through Jesus Christ our Lord." Peter says—"Neither is there salvation in any other, for there is none other name under heaven given among men, whereby we must be saved."

Deliverance is through Christ alone.

Are you *out* of the pit?

NOTES FOR LESSONS ON SILK, ITS HISTORY AND GEOGRAPHY.

1. Silk is spun by a worm or caterpillar, through two holes in its head; the two threads thus produced are formed into one by a peculiar motion of the mouth and fore feet. It is spun into a cocoon about an inch in length.

2. China was the first country engaged in the manufacture of silk, articles of this substance having been procured from thence nearly two thousand years ago.

3. From China, two Persian missionaries brought to Constantinople a number of the insect's eggs, enclosed in a sugar cane, by which means the rearing of silk worms, and the manufacture of silk, were introduced into Europe. This was in the year 522; in the reign of Justinian.

4. From the island of Cos, the rearing of the insect spread towards the west, locating itself successively in the north of Italy, and the east of France.

5. For a long period articles of silk were so expensive, that they could only be used by the wealthiest. James VI. of Scotland borrowed a pair of silk stockings, in which to receive the English Ambassador. Before the introduction of the manufacture into England, Mary, in 1554, passed a law to prevent the wearing of silk. Persons to be imprisoned three months.

6. Thirty-one years after Mary's law, the city of Antwerp, then celebrated for its silk manufacture, was taken by the Duke of Parma, when a third part of the inhabitants of it, and of the surrounding districts, Brabant and Flanders, fled to England, with the art for which they had been so celebrated at home. Thus England owes the manufacture to religious persecution. A century later, on the revocation of the Edict of Nantes, by Louis XIV., about 70,000 Frenchmen made their way to England, establishing this manufacture in several places; many of them settled in Spitalfields, London, where much of the silk trade is still found.

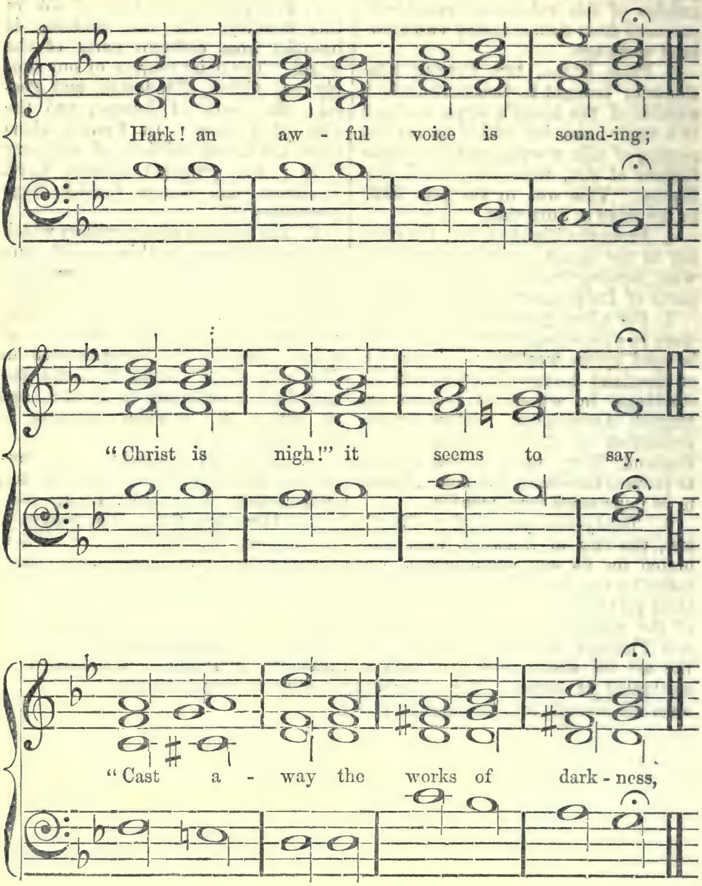
7. For the manufacture of silk in this country, the raw material is brought from different parts of the world. The chief sources of our supply are China, Hindostan, and Persia; the south of Europe, and the east of France. In France alone there are fifteen millions of mulberry trees; the principal district Gard. Piedmont and Genoa furnish large quantities.

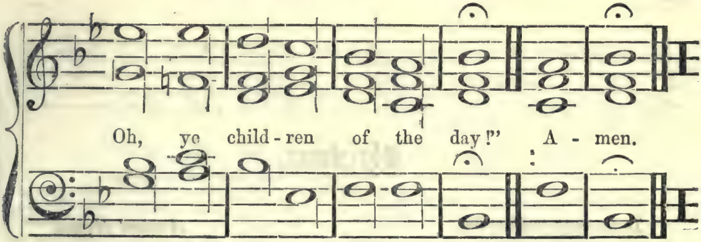
8. The number of caterpillars which are reared to supply this manufacture is beyond conception. One pound of silk requires twelve pounds of cocoons, to make which, at least 2,800 worms are required; now four millions of pounds of silk are manufactured in England alone, while it forms the principal manufacture of France, and in China it provides clothing to millions of people.

9. The places engaged in this manufacture in England, are Manchester, Macclesfield, Congleton, Leek, Norwich, Coventry, Colchester, Sudbury, in Suffolk, Spitalfields, &c. When these localities are compared with those of cotton, a question may arise why they are so scattered? The answer may be found partly in the circumstance that the manufacture was introduced by refugees, who settled according to circumstances.

Advent.

Ancient Hymn.


Hark! an aw - ful voice is sound-ing;
"Christ is nigh!" it seems to say.
"Cast a - way the works of dark - ness,



2d Verse.

Startled at the solemn warning,
  Let the earth-bound soul arise;
Christ, her Sun, all sloth dispelling,
  Shines upon the morning skies.

3d Verse.

Lo, the Lamb so long expected,
  Comes with pardon down from heaven!
Let us haste with tears of sorrow,
  One and all to be forgiven.

4th Verse.

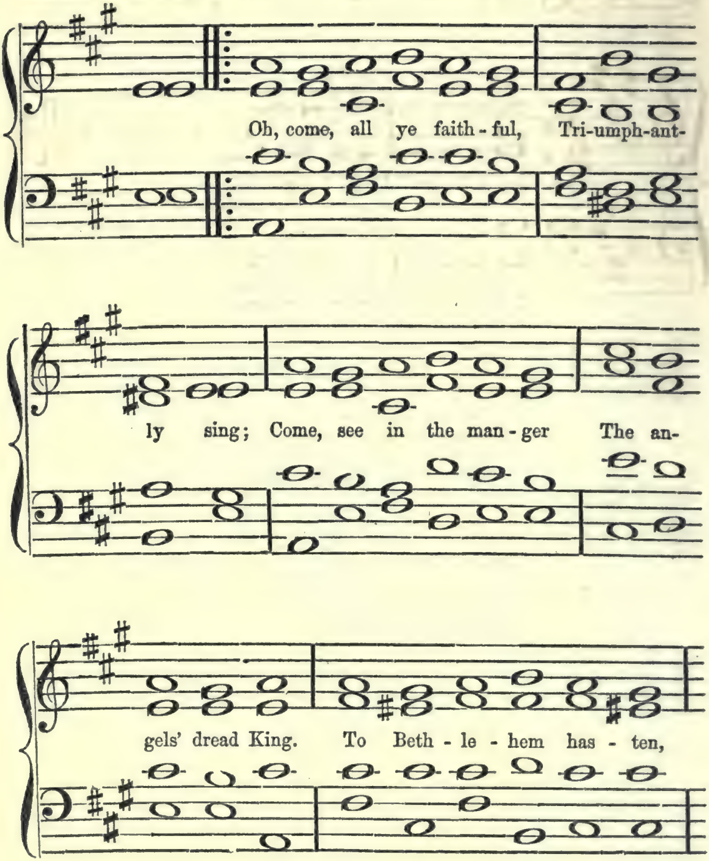
So when next He comes with glory,
  Wrapping all the earth in fear,
May He then as our Defender,
  On the clouds of heaven appear.

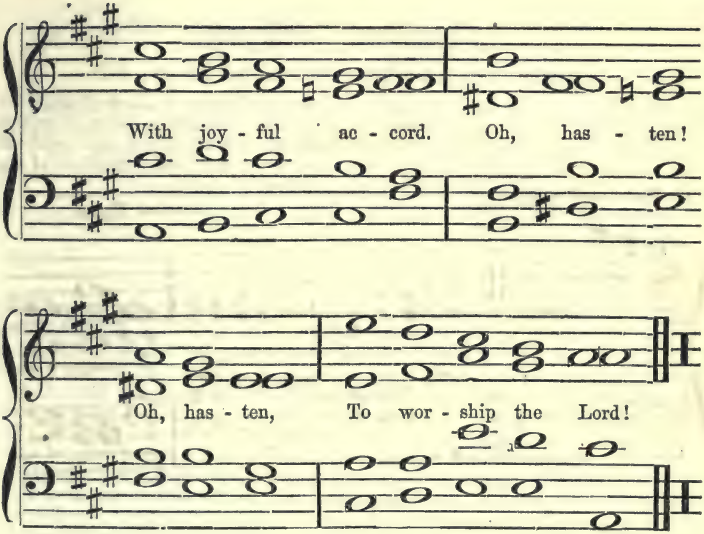
5th Verse.

Honour, glory, virtue, merit,
  To the Father and the Son,
With the everlasting Spirit,
  While eternal ages run. Amen.

Christmas.

To be sung with spirit. *Ancient Hymn.*


Oh, come, all ye faith - ful, Tri-umph-ant-
ly sing; Come, see in the man - ger The an-
gels' dread King. To Beth - le - hem has - ten,


With joy - ful ac - cord. Oh, has - ten!
Oh, has - ten, To wor - ship the Lord!

2nd Verse.

True Son of the Father,
He comes from the skies;
The womb of the Virgin
He doth not despise.
To Bethlehem, &c.

3rd Verse.

Hark to the angels
All singing in heaven,
To God in the Highest
All glory be given.
To Bethlehem, &c.

4th Verse.

To thee, then, O Jesus,
This day of Thy birth,
Be glory and honour,
In heaven and earth,
True Godhead, Incarnate,
Omnipotent Word!
Oh, hasten, oh, hasten,
To worship the Lord!

Educational Intelligence.

TESTIMONIAL TO THE REV. V. W. RYAN, D.D.

On Saturday, Nov. 11th, a meeting of the residents and ex-students of the Metropolitan Training Institution took place in the new lecture room, to present to the Rev. Dr. Ryan a testimonial of their affectionate regard, and to express their gratitude for his kindness to them while he had been Principal of the College. The testimonial consisted of the following works:—

Poli Synopsis Criticorum
Chrysostomi Opera
Œuvres de Nicole
Le Nouveau Testament, Quesnel
Bp. Hopkin's Works;

and was presented in the presence of the officers and their friends, several of the clergy of Islington, and the students' friends. The Rev. W. I. Edwards, Vice-Principal, who presided, having opened the meeting, the Address to Dr. Ryan was read by the student who first entered the college. It contained some remarks concerning the public character of the late Principal, and then enlarged on his efforts for the mental and moral culture of his pupils, concluding with the wish that his journey may be prosperous and his mission effective. Dr. Ryan then thanked them for their offering, and took the opportunity of again pressing the importance of spiritual religion and faith in God, while engaged in the work of education. He also publicly expressed his thanks to the Committee of the Institution, especially to the Secretary, and to the officers, for their co-operation and prompt attention to its interests. Several clergymen then spoke and the students sang some choruses from the Messiah, the execution of which reflects the highest credit on Mr. G. W. Martin, the music master. The blessing having been pronounced the assembly broke up.

CIRCULARS TO TRAINING SCHOOLS UNDER INSPECTION.

We insert an extract from a Memorial agreed upon by a Meeting of the Principals and Chaplains of Training Colleges in union with the National Society, and the reply in full of the Secretary of the Committee of Council on Education.

"I am therefore requested to solicit the attention of their Lordships to the four points mentioned above, in the hope that their Lordships may be induced,

First,—To make the payments of the Queen's Scholars conditional only upon residence, and, if possible, prospective, the renewal of the Scholarship being contingent upon his good conduct, as certified for the last year.

Secondly,—To renew the Queen's Scholarship, under certain limitations, a second time, so as to enable the Queen's Scholar to pass a special examination at the end of the third year.

Thirdly,—To open the competition for Queen's Scholarships to ordinary Students after one year's residence in a Training School.

And Lastly,—To examinate the Candidates for Queen's Scholarships, as was done last year, after the close of the Examination of Students.

I have the honour to be, &c.
(Signed) "JOHN G. LONSDALE."

REPLY FROM THE COMMITTEE OF COUNCIL.

Privy Council Office, Downing Street,
15th November, 1854.

Reverend Sir,—In reply to the several points of your letter dated the 1st inst., I am directed to state that,

1 My Lords cannot dispense with the certificate on which the quarterly payments for the maintenance of Queen's Scholars are issued.

It appears to their Lordships that the hold of the Colleges over the Queen's Scholars would be weakened rather than increased by the proposal, which only shifts the incidence of the loss, but inflicts no penalty upon the delinquent who causes it.

The exhibition contemplates a Training; moral and intellectual, of one year, and is paid by instalments for so much of the work done.

The Committee of Council has always repudiated direct responsibility for the moral character of Pupil Teachers, (Minutes 1848-9, p. 110.), and Queen's Scholars, (*ibid.* 1851-2 vol. 1. p. 106.)

You will see upon reference to Minutes 1850-1, vol. 1, p. xix., that my Lords contemplated the Queen's Scholarship, in relation to the Queen's Scholar, as a set-off against payments "due" from him in the same manner as from any other Student.

As Queen's Scholars cannot forfeit their Scholarships except by misconduct or desertion, it would not be unreasonable on the part of each College to give notice on the admission of such Scholars that the parents or guardians are chargeable for the cost of maintaining and instructing the several Scholars to the extent that those Scholars may forfeit their Scholarships.

Death, sickness, and reasonable causes for a change of destination in life, have always been, and will be, admitted by my Lords as sufficient indemnities.

It appears to their Lordships that they could not take any other ground without involving the principle that the Committee of Council presents Candidates of its own for training, instead of confining itself to ascertaining that the Candidates presented are intellectually qualified, and have satisfied the proper judges of their moral and religious character.

My Lords have too much reliance upon the attested soundness of the Pupil Teacher system to expect that the necessity of forfeiture will be frequent, and upon the high character of the Training Colleges, to suppose that it will ever fail to be inflicted when necessary.

For the reasons stated my Lords do not consider that they can properly charge the Parliamentary Grant with the loss.

2. My Lords find that Professor Moseley has arrived at the conclusion that two years is as long a period of training as, when added to an apprenticeship of five years, suffices to fit ordinary Students for the office of elementary Schoolmasters.

Their Lordships are of opinion that, taking the entire scale of grants as settled by the Minute of 28th June, 1854, into account, it sufficiently enables the Colleges to provide for a third year's course of training to the extent that the interests of elementary education are concerned therein.

3. The Queen's Scholarship has been offered hitherto as a Pupil Teacher's prize. It involves a change of considerable importance to open it beyond that body. Considering, however, the relaxation in the number of such Scholarships allowed in December last, my Lords are not indisposed to add some force to the present competition. The authorities of Training Colleges may therefore name not only Queen's Scholars of the first year for *renewal* as at present, but also

any other Student (over 20 years of age). of the same standing for the *grant* of such a Scholarship, during the next year. The Scholarships in these cases will be awarded on the Student's Examination, viz.. Scholarships of £25* to those placed in the first and second divisions, and £20* to those in the third. The Principal will, of course, have to dimininish his number of admissions open to new Queen's Scholars, in proportion as he retains a larger margin, (See Minute 20th December, 1853, § 3) for the Scholarships of former Queen's Scholars and Students. The Scholarships opened to the latter will not be renewable.

4. My Lords will examine the first and second year's Students *together*, beginning on the 11th of December. and the Candidates for new Queen's Scholarships *afterwards by themselves* on the following 19th. The reasons given for this change entirely convince their Lordships.

I have the honour to be, &c.
(Signed) R. R. W. LINGEN.
The Rev. J. G. Lonsdale.

Committee of Council on Education,
Council office, Whitehall, 21st November, 1854

Sir,—Adverting to your letter of the 6th inst., in which you inquire whether a Schoolmaster already holding a Certificate of the Third Degree, and attending for another examination, but this time upon the second year's papers, will, in the event of failure, forfeit the Certificate which he already holds, I am directed to state that such will not necessarily be the case.

My Lords reserve to themselves the right of withdrawing the first Certificate if the result of the examination appears to them to call for such a measure, but, generally speaking, the holder of a Certificate obtained upon the first year's papers may be examined (after an interval of not less than one year), upon the second or third year's papers, without more risk to his Certificate than may result from his shewing that he now falls below the standard upon which that Certificate was granted.

At the same time, it is necessary to guard this statement with reference to those Students who may endeavour to make use of it for the purpose of quitting their Colleges at the end of their first year.

The first quinquennial Certificate pursuant to § xi. in the Minute of 20th August, 1853, will be fixed (so far as it depends upon Examination), by the position of the holder in the *Student's* Class List. Whatever examination he may pass, between the time of leaving College and the end of the seven years which must elapse before a new Certificate is issued, will have no immediate effect, but will only be recorded in his favour for consideration (among other data) when the proper time comes.

While, therefore, a Student who stays in College two full years may possibly obtain the benefit of a high Certificate after the end of two years' service as an Elementary Teacher under inspection, the same Student, if he leaves his College at the end of the first year, may indeed get into employment by one year the sooner, but will be a loser by four years in the time that must elapse before his Certificate is raised above the Third (lowest) Degree. For instance,

1. A. B., who enters the College in December, 1854, passes for the second year in December, 1856, and forthwith enters into service as a Teacher, may be certificated in the second degree in the early part of 1859.

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* Two-thirds in the case of females.

2. C. D., who enters the College at the same date, passes for the first year in December, 1855, and forthwith enters into service as a Teacher, cannot be certificated above the third degree before the early part of 1863.

I have the honour to be, &c.,
(Signed) R. R. W. LINGEN.

John Martin, Esq.

SCHOOLMASTERS' AND SCHOOLMISTRESSES' ASSOCIATION, FOR THE DIOCESE OF GLOUCESTER AND BRISTOL.

The Annual Meeting of this Association was held in the Cathedral Library, Gloucester, on Saturday the 4th November. The meeting was well attended, and was of a highly interesting and instructive nature. The following gentlemen, among others, were present. The Venerable Archdeacon Thorpe, Rev. F. M. Browne, Rural Dean of Gloucester; Rev. H. W. Bellairs, H. M. Inspector of Schools; J. C. Haward, Esq.; Mr. John Sutcliffe, Normal College, Cheltenham; Rev. J. Clements, Upton St. Leonards; T. Baker, Esq., Rev. R. E. Blackwell, Amberley; Mr. McKeiller, Tetbury; H. Bengough, Esq., Mr. Percival, St. Paul's Model School, Cheltenham; Rev. E. Knollys, Quedgely; Rev. J. Emeris, &c., &c. The Rev. F. M. Browne occupied the chair. The meeting was opened with prayers from the Liturgy, after which,

The Chairman stated on behalf of the Lord Bishop of the Diocese, his lordship's entire approbation of the association, and his readiness to promote its objects by all the means in his power. The Dean and Chapter, too, who kindly placed the Cathedral Library at the disposal of the Committee of the Association, for the purpose of the meeting, were stated to be most favourably disposed towards the Association.

The Chairman then called upon Mr. Bee, the Secretary, to read the report of the proceedings of the Association during the past year. This report showed that whereas, at the first establishment of the Association, there existed but two Societies in the Diocese for the improvement of the Teachers of Church Schools, there are now seven in active operation, in different parts of the Diocese. That these local Associations, at present, act entirely independent of each other; and that they appear to be productive of much benefit to the Teachers who compose them, and to the cause of Education generally.

This report having been received by the Meeting, the Rev. J. Clements proposed,

"That the officers of the Association be re-elected for the ensuing year."

This proposition having been carried unanimously, Mr. Clements next proposed,

"That a Committee of five members be appointed to confer with the existing Church Schoolmasters' Associations throughout the Diocese with the view of recommending to the next general meeting such alterations in the rules of the Diocesan Association as may effect the cordial and united co-operation of all such Associations with it, and that such committee consist of the following gentlemen. G. H. Bengough, Esq., Rev. H. W. Bellairs, Rev. J. Clements, Mr. John Bee, and Mr. W. Jeffery."

This proposition was also carried unanimously. The preliminary busines of the meeting having been thus disposed of, the Rev. H. W. Bellairs then delivered a most valuable and interesting lecture to the members. After expresing the pleasure he felt in meeting the members of the Association on that occasion, the rev. gentleman proceeded to state what he conceived to be the objects of such Associations, and the benefits to be derived from them, as well as the subjects for discussion at the monthly meetings. The following, among other subjects, were mentioned as suitable to form matter for consideration on such occasions. The Teachers' own Studies—Subjects in reference to the Localities of their Schools—Subjects Taught in Schools—Methods of Teaching—Moral Training—School Payments—Manual Industry. The lecturer then graphically described the Schoolmaster's present position in Society. He contrasted it with what was his position previous to 1846, and reminded Teachers that they owe a deep debt of gratitude to the great men who first suggested to the Committee of Council the present Government scheme of Education,—Dr. Kay Shuttleworth. He concluded by urging Teachers faithfully to discharge their sacred duties, in humble reliance upon the blessing of the Almighty; not courting the applause of man, but remembering that "God and good Angels are looking on," and that an unfading reward is laid up in heaven for all who diligently and faithfully discharge their duties on earth.

The thanks of the meeting having been given to Mr. Bellairs for his excellent lecture, and the Apostolic Benediction having been pronounced by the chairman, the meeting then separated.

Most of the members then adjourned to the King's Head Hotel, where a luncheon had been provided for them. About fifty partook of this together. After the luncheon, the Venerable Archdeacon Thorpe, the Rev. H. W. Bellairs, T. Baker, Esq., Mr. Sutcliffe, and other gentlemen, addressed the members. The time was thus pleasantly and profitably passed till half-past four o'clock, when the members, many of whom had to go to distant parts of the Diocese, separated, highly pleased and delighted with the meeting.

LEICESTER AND LEICESTERSHIRE CHURCH SCHOOLMASTERS' ASSOCIATION.

The Quarterly Meeting of this Association was held at the Temperance Hotel, Leicester, on the 21st ult., the Rev. E. Smythies, President, in the chair. An excellent paper on the "Management of an Elementary School" was read by Mr. Hodges, of Old Dalby. It was divided into four heads, viz., School Government, School Discipline, School Education, and School Influence. The Annual Meeting of this Association will be held in January, when the rules will be revised, and officers chosen.

WILLIAM TAYLOR, Secretary.

THE DERBY AND DERBYSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

On Saturday, October 7th, the usual Quarterly Meeting of the above Society was held in the Curzon Street School-room, when Mr. Cockrane of Lenton, Nottinghamshire, gave a most instructive and interesting lecture on the nature and properties of oxygen, nitrogen, and carbonic acid gases, accompanied by successful experiments. After dinner, the rules were revised, accounts audited, and new officers appointed.

It was decided at this meeting, to apply the money in hand, derived from voluntary contributions and members' subscriptions, to the purchase of a good magic lantern with solar miscroscope, and also a box of astronomical slides, for the use of the members in their respective schools.

WEST NORFOLK, ISLE OF ELY, AND SOUTH LINCOLNSHIRE CHURCH SCHOOLMASTERS' ASSOCIATION.

A meeting of this Association was held on Saturday, October 28, in the St. John's Boys' School, King's Lynn; Mr. W. H. Krinks in the chair. Fourteen members, principally teachers of Lynn and its vicinity, were present. After general business matters were disposed of, at the morning sitting, specimen lessons, on a previously determined period of English History, were read. At 1 P.M. all adjourned to a comfortable dinner, for which provisions had kindly been made by the chairman. In the afternoon, a most interesting and excellent paper on "Music" was read by Mr. Beckett, of Castle Rising; in this were considered—1. The Importance of Music generally. 2. Its Advantages to the Teacher in particular. 3. Methods of Teaching it. 4. Practical Suggestions in conclusion.

The next meeting of the Association will be held (D. V.) in Wisbeach, on Saturday, December 9, when the subject of English History will be resumed, and a paper read by Mr. W. Orton, on "the Schoolmaster."

B. BRAY, Hon. Sec.

THE CHURCH OF ENGLAND SCHOOLMASTERS' AND SCHOOLMISTRESSES' MUTUAL ASSURANCE SOCIETY.

The Fifth Annual Meeting of the honorary and assured members of this Society, was held at the offices, 25, Bridge Street, Westminster, on Wednesday, June 28th 1854, at six o'clock, the Rev. John Gylby Lonsdale, one of the Trustees of the Society, in the chair.

The Chairman having called on the Secretary to read the notice convening the meeting, and the audited accounts being laid before the members, the Annual Report of the Society was read, unanimously received, and adopted.

The officers of the Society were elected for the ensuing year. A vote of thanks was given to the Trustees, Treasurers, Directors, Auditors, and other officers of the Society, for their past services, and to the Rev. John Gylby Lonsdale for his able conduct in the chair.

THE ANNUAL REPORT.

The Directors have much pleasure in presenting the following Report of their proceedings during the past year.

The number of Policies granted during the year has been as follows, viz:—

72 Assurances upon Life, to the amount of	£5,790
33 Endowment Assurances	1,365
Together representing a sum assured of	£7,155

And 42 Assurances for Sick Provision and annuities in old age, making a total of 147 new assurances effected; thus increasing the amount assured to the sum of £31,305.

The Income of the Society from the Premiums upon 556 Assurances (the total number in force on the 29th day of April, the date of the Balance Sheet) is £1,389 19s. 8d., which, with 13 Assurances made effective since the 29th of April, and 15 others in course of completion, increasing the prospective Annual Income upon the Premium account to the sum of £1,465 12s. 1d.

The Directors congratulate the Members upon the small number of calls upon the funds of the Society, on account of sickness and death during the year. Only 2 cases of each have occurred, calling for payment to the amount of

£139 17s. 9d. This, it is hoped, will satisfy the Members that great care and attention have been bestowed by the Directors in the examination of proposals for Assurances.

The Directors would remark that, since the formation of the Society, nearly £500 have been paid out to Members and their families, by which, valuable assistance has been afforded in times of affliction, caused by death and sickness, thereby proving the advantages of the Christian duty of prudent forethought.

The accounts up to the 29th of April, 1854, have been audited as usual, and their accuracy attested by the Auditors.

It will be seen by the Balance Sheet now submitted to the Members, that the Directors have been enabled to invest the additional sum of £1,080 19s. 2d., making the total balance in favour of the Society at that date £2,065 6s. 5d.

During the last six months, Agents have been appointed by the Directors in various parts of the country, for the purpose of introducing new insurances and through them Thirty-seven Proposals have been received: a much larger accession may be anticipated when these arrangements have had time to come into full operation.

The Directors have much pleasure in tendering their thanks to the Honorary Members for the kind assistance afforded to the Society.

In conclusion, the Directors while thanking their fellow members for the support, which has enabled them thus far to fulfil their duties, would again impress upon them the propriety of individual exertion, in placing prominently before their Scholastic friends the advantages which this Society is intended to afford, that by their united efforts it may become one of the most prosperous of its kind, and realize the most sanguine expectations of its founders.

NOTICES OF BOOKS.

Galbraith and Haughton's Manuals—Trigonometry, Mechanics, Optics, and Hydrostatics.—These Manuals are by two of the tutors of Trinity College, Dublin; and being compiled expressly to meet the requirements of their mathematical course, have been for a considerable time the recognised text-books of the College Lecture Room. Their value, however, is by no means a local one, and we have always held them to be especially well adapted to the wants of the Students in our Training Colleges. Moderate in price, they contain all that can fairly be embraced by introductory treatises. They precisely, indeed, satisfy what has often been pointed out as a want in our Cambridge Mathematical Literature, of good books, by able men, devoted solely to the treatment of the lower parts of physical subjects. The student of moderate acquirements and opportunities has been in consequence either left to select for himself from the larger treatises, or forced to content himself with more lax and popular methods of investigation. With these little books in his hand, he may feel confident in his guides, and will have nothing to unlearn, if he should afterwards be preparing to follow out the subjects to a greater depth. The proofs are simple and intelligible, and at the same time rigidly mathematical; the explanations are in the clearest possible language; and the examples well chosen.

Aue's German Grammar—Chambers' Educational Course.—The larger grammar of Dr. Aue, recently published in this course, is here simplified and abridged for the use of beginners, so as at once to present a less formidable appearance, and to commend itself to a larger number. The rules throughout are accompanied by a course of exercises, systematically arranged to exhibit their application, for which end they are exceedingly well adapted. It is as complete a little book of its kind as may be met with.

A Short Old Testament History, or Scripture Facts.—By the Rev. W. H. Pinnock, LL.D.—Whittaker and Co.—Dr. Pinnock is well known as the compiler of several useful summaries. The present work is "but an abbreviation of the author's larger 'Analysis of Scripture History,' and intended more for storing the memory with Bible *facts*, than for supplying arguments or elucidations." We cannot conceive of a more compact summary of Old Testament facts, nor an arrangement better fitted for storing the memory. Teachers will find this little, but very full, manual an invaluable aid in preparing their pupil-teachers for the Scriptural examinations.

The Word-Making Primer — By a Schoolmaster.—Longman and Co.—The "Schoolmaster" introduces his Primer by assuring his readers, that he sends it "forth with diffidence." We can fully sympathise with the hopes and fears of the man that makes a book, and wonder that teachers do not canvas their schemes a little more extensively, either in associations or educational periodicals, before committing themselves to a book. Many little misconceptions would be removed. Thus in the work before us the author says—"The method of using the black-board in a reading lesson is, as far as the writer knows, quite new; and from this part of his plan it is that he anticipates the best results." Now the fact is, that the black-board has been extensively used in teaching to read, for many years. Our opinion of the plan proposed is not very favourable; it is too much like a return to methods long since voted by common consent to be profitless. In the first lesson such passages as these occur—baa! bo! and la! Nay, the boy, and the way. A doe, a foe, and a hoe. The jay, the fay, and the day." In the second lesson we have—"The ram, a race, the rat, a sack, Saul, a sail, &c." The introduction assures us that there can be no doubt about children learning to read well by the method proposed; we may admit this, but should attribute such a result to the untiring energy of the proposer of the scheme, rather than to the method set forth.

The Young Child's Lesson Book—By W. Cort.—Simpkin and Co.—Another plain and easy method to read well at sight. Mr. Cort starts with Jacotot's principle; teach words as unities, and get at the powers of the letters afterwards by analysis. We do not think the principle well worked out with such lessons as "boo, poo, too, doo, moo, noo, loo, &c." Why not enter upon simple words at once. The lessons further on are good and carefully arranged. In this little work, and the one last noticed, we have the same fault—a system too involved to be adopted in elementary schools. Both these books have evidently been prepared with great care, and at a cost of much time and labour. We have no doubt the scheme in both cases worked well in the hands of the originators. This, however, is not enough. Any scheme, to meet with general approval, must be characterised by great simplicity, and fitted to be worked out by the *subordinate* agents in elementary schools.

The Stepping Stone to Animal and Vegetable Physiology—By Mary Shield.—Longman, and Co.—Compiled from the best sources, and pretty freely illustrated. The part on physiology contains a fair collection of instructive matter, principally on the human frame. Pleased as we are with the book generally, we cannot help taking exception to the following sentence, as out of place in a work for children:—"After air has once got into the lungs, it can never, as I have said, be completely expelled; hence the lungs of a person who has breathed always float in water; and on this fact is founded the test used in criminal examinations to distinguish a still (or dead) born babe from one that has breathed or been born alive." We attach great importance to instruction in physiology, but it requires delicate handling, and even then, many points should be held in reserve for a riper period of life.

Correspondence.

Sir,—I can hardly comprehend the question of "A Schoolmaster" in your last number, "whether is rain caused by the *condensation* or *exhaustion* of the air?" It appears to me that your correspondent considers air to be that which retains a certain amount of vapour in the atmosphere, and, therefore, when this vapour falls in the form of rain, then the air must be either exhausted or condensed. Respecting the constitution of atmospheric air, it is the opinion of modern chemists that each of the substances Oxygen, Nitrogen, Carbonic Acid, and Watery Vapour exists in an independent state, and is *not chemically combined with* but *diffused among* the rest. There is consequently an independent atmosphere of vapour, and with this we have to deal. Heat, by decreasing the attractive cohesion of the particles of water, is the cause which produces all vapour; and, therefore, reasoning conversely, when the vapour parts with its heat, the attractive cohesion of its particles is increased, and drops of rain are formed.

The process, in reality, is a little more complicated—for instance, a body of vapour is formed near the surface of the earth, it rises, but, as the specific gravity of *air* as compared with vapour at the same temperature is much greater, being as 1000 to 625, it follows that the vapour will rise into a region of the atmosphere much *higher* and consequently much *colder* than it otherwise would, supposing both had the same density. Condensation takes place accordingly, but not to such an extent as some imagine, for, as the condensation proceeds, the vapour parts with a great amount of *latent heat*, which immediately raises the temperature of the air in its vicinity. This additional heat, of course to a certain extent, prevents further condensation, and therefore our body of vapour, which is now become a mass of small rain-drops, falls to a region where the specific gravity of the air is equal to its own. Here it floats and is what we call a cloud. This cloud, if the temperature into which it falls be very great, will evaporate and rise again; or, if the reverse be the case, and it falls into a cold current of air, then a further condensation ensues, larger drops are formed, and the whole falls to the earth in a shower of rain. When the cold is intense, condensation proceeds more rapidly, and large drops are formed.

When the difference in the temperature of the air and vapour is not great, a heavy mist is the consequence, and when rain is formed in regions of different temperature, these large and small drops fall together at the same time.

NESCIUS.

Sir,—To "J.R." I will just observe that though the Arithmeticon, or ball-frame, is a very useful apparatus for teaching little children to add or subtract simple numbers, yet it may be dispensed with. I find that by the aid of a black board, a few marbles, or even with the fingers alone, numbers may be indicated sufficiently large for the capacity of such young children as he names. To such I have made the first steps of simple subtraction intelligible thus:—

From 245
Take 102

"Children, attend to me now. A little boy had two hundred and forty five marbles in a bag, and he gave another little boy, who was his play-fellow, one hundred and two; now how many do you think he had left? *You cannot tell!* Well, we will try to make it out. I have already taught you how to make figures and to read small numbers; read this line which I write." "245." "Very well: that is the number he had in his bag at the first. What is this number which I place below it? 102—quite right: that is the number which he gave to his play-fellow. Now we must begin with the right hand figure and take it from the figure above it. If I take 2 from 5 how many will be left? *You don't know?* How many fingers do I hold up? Yes! you are quite right; I hold up five. Now see, I will take away two of them, how many are left? (I bend down *two* of them.) Yes!

three are left; so I put down the figure 3 to show how many are left. Now I want to take *nothing* from *four*; how many will be left? See, there are *four* fingers (I make an imaginary grasp at them, leaving them, of course, standing as before), I have taken nothing away, how many are now left? Yes! four. Then I must place that figure below the nought. We must now take *one* from *two* (holding up *two* fingers and bending down *one* of them with the other hand), how many are left? *One!* to be sure: so I must write one. Now read the line. Yes, he had 143 marbles left in his bag, &c., &c."

I always teach numeration to the youngest children in connexion with their arithmetic, but it must not be supposed that I would absolutely *begin* to teach subtraction with such high numbers as I have used above. W. P.

Sir,—Knowing the value of your periodical not only as regards the "principles of teaching," but the "philosophical answers" of your correspondents to questions, I beg leave to ask one, before which, however, the following remarks are, I think, necessary:—

As a complete thought is the "judgment between two notions at the time they come into existence," so that when we express that thought we are expressing a "present" judgment, so does it follow that when we are in a train of contemplation (one idea leading to another) we ought to be able to express our thoughts at the time this judgment is made; that is, that it is improper, nay injurious, to the mind to retard, by the work of the hand, the expression of our ideas.

I will now show how I think the expression of our ideas may be retarded by the work of our hands; and I beg pardon if I am wrong. That immortal work of Euclid, his "Elements of Geometry," is, I think, studied by almost all my fellow-teachers. There are two ways of learning it. One is the following:—

The enunciation is repeated, and then follows the "particular enunciation," and the "construction," which is accompanied by the "rearing up of the figure," that is the "figure is worked (step by step) upon the black board at the same time as the repeater repeats the construction;" the work of our hands accompanying the expression of our ideas or exposition of the construction. The other way is as follows:—The figure is put down "before ever a word is said," and then the repeater goes through with the proposition similarly to the way in which he learnt it; his mind (during the repeating of it) receiving the same ideas as the first repeater, minus "the retarding work of the hands." The question I wish to ask, sir, is, Which is the better method of repeating Euclid? By furnishing me the information thus required through the medium of your "valuable Papers," or if any of your correspondents will do the same, you will very much oblige,

Yours respectfully, G. H. F.

Sir,—Our Incumbent has suggested to me a still shorter method by which "P. M. P." may work the sum proposed in your last two monthly Papers. 19s. 4d. is £1 minus 8d., or its 30th part; if, therefore, we call the number of articles £ s. and subtract the 30th part, we obtain the desired result in 18 figures.

30)	4253	0	0
(Subtract)	141	15	4
	£4111	4	8

E. W.

Sir,—Allow me, as a feeble advocate of the decimal coinage, as briefly as possible to reply to "P. M. P.'s" remarks in your last number. He has calculated 4253 articles at 19s. 4d. by decimals in 72 figures, by practice in 47 figures, and by pence in 45 figures. I propose to do the same in 15 figures, those within brackets being strictly explanatory:—

(4253 at £1)	£4253	0	0
($\frac{1}{30}$ off)	141	7	6
	4111	2	3
	£4111	2fl.	33⅓ mils.

This may be done mentally, without pen or pencil, in 10 seconds, by simply extending the repeating figure as far as wanted; but if we attempt to reduce the decimal of a pound to shillings and pence, in order to obtain its equivalent, 4s. 8d., the brevity of the calculation melts away, and pen and pencil is requisite, or we incur the risk of a blunder.

Your obedient servant,

DECIMALS.

Forfarshire, 6th Nov. 1854.

SIR,—Having been a Subscriber to your "Papers" since their origin, I have taken some little interest in many points discussed in them, and frankly confess to having reaped some little advantage from the perusal of them. *Inter alia*, I have noticed some of your articles on "Decimal Coinage," and more latterly the communications of P. M. P. Without entering into the merits of the question at issue between him and you, I would, with your leave, simply suggest that a considerable amount of time and space might be saved in the specimens of calculations which he gives in your last: ***e.g.***, taking the question as it is put:

4,253 articles at 19s. 4d.

1. BY DECIMALS—

19s. 4d.=966·6 mils *exactly*.
4253
29000
483333
1933333
38666666
4111·233·3=£4111 2 fl. $33\frac{1}{3}$ mils (or £4111 4s. 8d.)

Thus reducing P. M. P.'s number of figures by 15 at least. Or, if he will take the following plan:—

4253,00 × $9\frac{2}{3}$fl.
$9\frac{2}{3}$
3) 850600
$283533\frac{1}{3}$
3827700
4111·2,$33\frac{1}{3}$=£4111, 2fl. $33\frac{1}{3}$ as above, with a further reduction of figures will be effected; or shorter still,

19s. 4d.=£1—$\frac{1}{3}$ of a florin.
4253,00
10—$\frac{1}{3}$
4253,000
141,$766\frac{2}{3}$
£4111,2,$33\frac{1}{3}$ as before.

2. BY PRACTICE—
£.
at £1 4253
8d. or $\frac{1}{30}$ 141 15 4
at 19s. 4d. £4111 4 8

Where we have also a considerable reduction.

3. BY SHILLINGS—(It is not necessary in this case to take pence.)
4253
$19\frac{1}{3}$ sh.
1417 8
80807
20) 8222,4 8
£4111 4 8

In the hope that a hint may be taken from the above, as to the shortening and simplyfying of mercantile calculations, whether by the antiquated mode, or under the expected new system, I would solicit a corner in your Paper. I have taken the question as it stands. Had I felt inclined, or considered it right, I might have adopted an exercise more suitable to my purpose; but the end I have in view might not, in that case, have been so well served.

I am, &c.

D. P.

PAPERS FOR THE SCHOOLMASTER.

No. 47. JANUARY 1, 1855.

Examination for Certificates of Merit.

The annual examination for certificates of merit has lately terminated. During the year an essential alteration, suggested at an earlier period, has been carried into effect, by which the subjects of study in Normal Colleges have been systematised and distributed over the different years of residence. There can be no question that the new arrangement by giving greater definiteness and solidity to a teacher's studies, and therefore greater reality to his certificate of merit, not to say truthfulness to his personal character, must be a movement in the right direction. When, however, changes are suddenly made, inconveniences are likely to arise, and during the transition particular interests are liable to suffer. If we take an impression from the letter of a correspondent, who has been a subscriber from the re-issue of No. I., and who appeals to us very properly as the exponent of the feelings of his class, a very universal dissatisfaction exhibited itself at, at least, one of the recent examinations. We do not think that any purpose will be served by publishing his letter, though we are happy to serve the class whom he may represent, by noticing its contents. He is, however, in error, when he assumes that no sufficient notice was given of the projected alteration. Our own periodical, and, we conceive, that our contemporaries, advertised it, and it clearly was the duty of every schoolmaster who was directly interested, to ascertain for himself if he was preparing for the examination, what was its exact application to his own case. Our correspondent draws a comparison between the past and present examination, to the prejudice of the latter, as being less capable of drawing out what a teacher knew, from want of scope. To this remark, we reply that there was scope enough in the second year's papers; but scope could only encourage desultoriness and superficiality in the case of every candidate who proves himself unable to pass the first and more elementary examination of the first year. All who were previously certificated were qualified to take the harder paper.

Complaint is also made that the style of the Papers on Mechanics and Arithmetic were of so new and strange a style, as contrasted with those hitherto set, that multitudes of very laborious and deserving candidates, who had been fagging at the expense of health and family comforts, were fairly beaten. We cannot but concur in this remark and shall be truly glad if any representation on our pages should reach the eye of the proper authorities, and should obtain as favourable a revision of the papers as the accidental circumstance of hardship may seem in justice to demand. We observe, for instance, that two entire sections are devoted in the papers on arithmetic to questions upon the new decimal coinage. It is true that Professor Moseley, in his report to the Lord President, speaks of his purpose to introduce questions of this nature, but the omission of a more *direct* intimation to the Principals of Normal institutions has left all special preparation as a matter of hazard. Such omission must have been attended with still greater risk to candidates unconnected with Training Schools.

In conclusion, we beg our correspondent and our readers to make allowance, when they are disposed to pass judgment upon those who are charged with the administration of so gigantic a measure as that of National Education, at this early period of its history. On the other hand, we cannot withhold our sympathy with those who need some special indulgence towards errors and misconceptions, inseparable from the introduction of new regulations.

Decimal Coinage.

No. IV.

(*Continued.*)

14. The two points on which we insist, are—

First, that an entirely decimal system of *accounts* should be introduced, in combination with such alterations of *coinage* as will be best adapted to, and will most certainly be the means of introducing such a system of accounts.

Secondly, that the pound sterling should be, as it now is, the highest and principal unit of account.

15. Money of account is frequently confounded with coinage, and this leads to serious misapprehension.

16. A *money of account* is any money which is used in accounts—any money for which a column is ruled in the books. The items of our present money of account are pounds, shillings, pence, and farthings.

17. A *coin* is a stamped piece ot metal which has, or has with nearness, the value for which it is a legal tender.

18. Money of account may exist without coin: thus, for a long time there was nothing to represent a pound except a promissory note of the Bank of England, or of a private banker. During part of the sixteenth century, there was nothing, coin or note, to represent either a pound or a shilling, though accounts were kept, as now, in pounds, shillings, and pence.

19. Coins may exist which are not moneys of account: of which we actually have threepenny and fourpenny pieces, sixpenny pieces, florins, half-crowns, crowns, and half-sovereigns.

22. On the question, how the *actual pound sterling* is to be decimalized, there is no dispute. It fortunately happens that the number of farthings is very nearly 1000; being 960, or only four per cent. less than 1000. If the *copper* portion of the coinage, and the silver smaller than sixpence, be lowered 4 per cent., the whole change is made, *so far as accounts are concerned.* The *sixpence,* now so called, will be 25 farthings instead of 24, the shilling 50 farthings instead of 48, the florin 100 farthings instead of 96.

23 Perhaps this may be illustrated, for those who are new to the subject, in the following way:—Suppose that the Mint should issue a silver coin, call it a *cent,* of the value of twopence halfpenny of present money. We should then have

10 farthings make one cent.
10 cents make one florin *and a penny.*
10 florins make one pound.

The pound would now be decimally subdivided, but for the words in italics. Let the farthing and cent be lowered four per cent. in value, the shilling and florin being unaltered, and then the words in italics must be erased, and the pound is decimally divided into florins, cents, and farthings.

24. It has been proposed that the depreciated farthing should be called a *mil.* Four mils might still be called a *penny,* probably 25 mils would still be called *sixpence,** and the half florin, or 50 mils, would still *be* a shilling. In changing

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* The name of a coin is found to be associated rather with its appearance than its value. Thus, in the sixteenth century, the penny was of silver, and the word *penny* suggested a very small silver coin. When the silver *twopence* was coined, it came to be called a *penny of twopence,* and it appears under that name in books of arithmetic.

money, all that need be remembered is, that the *sixpenny coin* is (nominally) a farthing more than it used to be, the shilling a halfpenny more, the florin a penny more.

25. The coins of account would be pounds, florins, cents, and mils. The shilling coin still remains at its present value, but disappears *from account*, 5 cents or 50 mils taking its place. The penny undergoes an alteration of value, and disappears from account. The penny coin remains in circulation as representing four mils, and 25 pence make a florin (100 mils) instead of 24.

26. Since the change in the copper coinage is the greatest change proposed, the opponents of this change must be those of most note. These opponents contend that the penny is a coin of so much importance to the poorer classes, that it cannot be altered in value, even though the alteration preserve the shilling and the sixpenny coin unaltered, and amount to but four per cent. on smaller coins.

27. The true *decimal* advocates of the unaltered penny, propose * that the coins of account shall be the unaltered farthing, a cent of 10 farthings (2½d.), a florin (or some other name) of 10 cents (2s. 1d.), and a pound, again under some other name, of 10 florins, or £1 0s. 10d. present money. The penny, though thrown out of account, remains as a coin of four farthings, at its present value.

28. Against this system we contend, that the fixture of the penny at its present value is not a matter of any consequence even to the poorest classes; and that this assertion is fully borne out by evidence. The working classes think of their larger contracts in shillings, and not in pence; and as to their smaller contracts, it is obvious that no year elapses without greater changes than 4 per cent. taking place in the quantity of almost anything which can be bought under sixpence.

29. Of more importance than the penny, and to all classes, rich and poor, is the *preservation of the shilling, at its present value, and in its present relation to the pound.* The workman who is paid weekly, and the small shopkeeper, would be seriously inconvenienced if they were obliged to think of a new coin, different from the old shilling. All the quotations of prices, which are made in shillings, up to 100 at least, would be disturbed. In the plan we propose, the shilling, though thrown out of *account*, remains unaltered, and may be used, both in thought and in speech, as at present.

30. The greatest difficulty in the way of an alteration in the penny is the adjustment of such things as tolls, postage-stamps, &c. On this point it is only necessary to say that sufficient methods of meeting these acknowledged difficulties were proposed to the committee of the House of Commons, and that no one person whom the adjustments would affect has offered any opposition to the measure, or proposed any amount of proof that the change is of insuperable difficulty.

31. On the other hand, men of politics, of business, and of science, are all but unanimous in thinking that any alteration in the highest coin of account, the *pound sterling*, would be a commercial inconvenience of the most grievous character, not to be thought of except in exchange for some very striking advantage.

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* Some propose that the penny shall consist of 10 new farthings, that tenpence shall make a franc, and that ten francs shall make the highest coin. But this system has a disadvantage of its own, independently of those which it shares with others of the same class. The sum of 8s. 4d. is far too large for a silver coin, and far too small for a gold one. Even the half-sovereign, were it the chief gold coin, would have a very expensive wear and tear.

34. The balance of inconvenience between our system and that of the unaltered penny, described in § 27, must be formed from the following comparison:—

We propose a diminution of 4 per cent. in the farthing and the penny, the effect of which is brought round by the introduction of two additional farthings into the shilling: and *shilling and pound remain unaltered.* An amount of inconvenience is granted: but one which we contend will seriously affect no class. The other system proposes an increase of $4\frac{1}{2}$ per cent. to the shilling (or whatever the twentieth part of the new pound is called), and an increase of $4\frac{1}{2}$ per cent. to the pound. *Both the shilling and the pound are altered.* We contend that a much greater amount of inconvenience is certain, and that it will affect all classes of society.

35. The coin which may be altered in value with the smallest inconvenience, is that the *purchase* of which has been most fluctuating. Those who have been used to buy very different quantities, say of bread, for a penny, have, in effect, been used to pence of different values. The coin which is altered in value at the greatest inconvenience, is that which we may call the coin of *estimation*, the coin in which matters of permanent importance are *thought of;* the coin in which this year is compared with last year. The coin of estimation of the poorer classes is the shilling; of the richer classes, the pound. The system we propose alters neither the shilling nor the pound. The system which preserves the penny at its present value makes new coins in place both of the shilling and the pound.

36. Something has been said about the difficulties of the decimal point, and the facilities of error which it introduces. No one need use the decimal[*] point. Those of the present generation, who have not been educated in the technical use of decimals, may copy the processes they have been accustomed to, in every particular of arrangement. Thus any one who chooses may multiply £6 9fl. 4ct. 3m., by 4, as follows:

£	Fl.	Ct.	M.
6	9	4	3
			4
£27	7	7	2

instead of,

£		Mils.
6·943		6943
4	or	4
£27·772		27772 Mils.

Any one may use the old forms of arranging calculations, until he begins to see his own way to the new ones. And should he never see it, he will still have the facilities of the decimal reckoning, the advantage of *no carriage except of tens;* and his children will have more.

37. Every difficulty which accompanies the decimal point is, and must be, found in the existing system in a more complicated form. It is true that the

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[*] We have seen it stated, as an objection to decimals, that a working man was puzzled when he was told that ·01 was the *proper way* of representing one hundredth, and ·001 the same for one thousandth. No wonder. If a person ignorant of decimal *numbers* were told that 22 is the *proper* way of writing *twenty-two*, he would be puzzled to know what had become of two and two make four. The decimal teaching which comes from the opponents of decimal reckoning should be looked at with caution.

great *facility* of decimal operations introduces risks of error: but this is the case with all facilities. Writing numbers in words at length, especially round thousands, millions, &c., is much *safer* than writing them in numerals.

38. We hope and believe that the establishment of a decimal coinage would soon lead to a general demand for a complete decimal system of weights and measures. But few or none advocate the attempt to change the weights and measures at the same time as the coinage.

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1854. *(MALES—FIRST YEAR.)*

CATECHISM, LITURGY, AND ECCLESIASTICAL HISTORY TO THE COUNCIL OF CHALCEDON.

(Three hours allowed for this paper.)

SECTION I.

1. Give texts of Scripture illustrative of the four last Articles of the Apostles' Creed.

2. Write out the address of the catechist to the child on repeating the Lord's Prayer, and give texts of Scripture illustrative of it.

3. State what is required of those who receive the Sacraments respectively, and prove the answers from Scripture.

SECTION II.

1. Mention texts of Scripture to show that "we ought at all times humbly to acknowledge our sins before God, but chiefly when we assemble and meet together," &c. &c.

2. What are the principal parts of the public worship of God as stated in the "general exhortation," and what scriptural authority have we for each of these forms of worship?

3. "Wherefore let us beseech Him to grant us true repentance and His Holy Spirit," &c. What blessings are stated in "the Absolution" to be consequent on these gifts?

SECTION III.

1. Write out the collect "for Grace" at Morning Prayer.

2. How may the supplications in the Litany be divided? Write out one in each division.

3. With what clause do the prayers of the Church usually terminate? Give texts of Scripture illustrative of that clause.

SECTION IV.

1. What reasons are there for believing St. James to have been the first Bishop of Jerusalem?

2. Give some account of the history of the church of Palestine after the death of St. James.

3. Who were the Apostolic Fathers? Give an account of one of them and of his writings.

Section V.

1. Under what emperors did the Church chiefly endure persecution, and at what dates?

2. Give a particular account of the persecution of the Church under one of the Roman emperors.

3. What testimony is borne by heathen authors to the early spread of Christianity, and what as to the nature of the religious worship of Christians and their morality? What reasons were alleged for their persecution?

Section VI.

1. Give some account of the life of Constantine the Great.

2. What great doctrines did the first four Councils severally affirm, and in opposition to what heresies?

3. Give some account of Julian the Apostate.

MALES.—SECOND YEAR.

ECCLESIASTICAL HISTORY.

(Three hours allowed for this paper.)

1. The 15th and the first half of the 16th centuries.

2. The Reformation in England.

Section I.

1. Give some particulars of the life of one of the following persons:
(*a*) Wickliffe; (*b*) Huss; (*c*) Erasmus.

2. Give some account of those communities of Christians who before the Reformation repudiated fundamental doctrines of the Church of Rome.

3. What circumstances in the political state of Europe, and in the progress of knowledge and the arts of civilization, towards the close of the 15th and the beginning of the 16th centuries, favored the Reformation, and in what way?

Section II.

1. Give some account of the early life of Martin Luther.

2. Who were the three principal Sovereigns of Europe at the time of the Reformation in Germany? What were their characters respectively, and in what relation did they stand to each other?

3. Who were the Popes during the first quarter of the 16th century? Give some account of their history. Name the great commercial state of that age, and state who were its greatest merchants, writers, and artists.

Section III.

1. Give some account of one of the following Reformers:—
(*a*) Zuinglius; (*b*) Farel; (*c*) Calvin.

2. What were indulgences? Give some account of the measures taken by Tezel to promote the sale of indulgences in Germany, and their results.

3. What means were taken by the Pope to silence Luther? Who were his chief antagonists? Give some account of his appearance at the Diet of Worms. What testimony does his early life afford to the existence of piety and learning among the monastic orders in Germany?

SECTION IV.

1. What before the reign of Henry VIII, had been the chief grounds of collision between the Popes and the Sovereigns of England? What were the bjects of the Statutes of *Provisors* and of *Præmunire*?

2. What measures were taken for the suppression of Wickliffe's translation of the Scriptures? Give some account of the history of the Lollards in the reigns of Henry IV. and Henry VII.

3. What general Councils were held in the 15th and 16th centuries, and under what circumstances?

SECTION V.

1. Give some account of one of the following persons:—

(*a*) Sir T. More; (*b*) Tyndel; (*c*) Latimer.

2. Give some account of the books issued by authority in the reign of Henry VIII. By whose authority were they issued? What three great principles of the English Reformation were established in that reign?

3. What Bishops of Henry Eighth's reign were on the side of the Reformation; and what on the side of the Pope? How did Cranmer act in regard to the Six Articles? What did he advise in regard to the revenues of the monasteries?

SECTION VI.

1. How long did the reign of Edward VI. last? What were the first acts of his reign in favor of the Reformation?

2. Give some account of the history of the Liturgy in the reign of Edward VI. What controversy was raised by Hooper, and with what results?

3. Give some account of the History of Cranmer during the reign of Mary.

MALES.—FIRST YEAR.

ARITHMETIC.

Three hours allowed for this Paper.

SECTION I.

Give the reason for each step in working one of the following sums:—

1. (*a*) Multiply 231 by 29.
   (*b*) Multiply $\frac{2}{3}$ by $\frac{5}{8}$ and divide the product by $\frac{4}{9}$.
2. (*a*) Multiply ·3076 by 1·072 and divide the product by ·008.
   (*b*) Reduce 7s. 10½d. to the decimal of £1.
3. (*a*) Extract the square root of 652864.
   (*b*) Multiply 12 ft. 5 in. by 11 ft. 7 in.

SECTION II.

1. If the poor rate on £23. 17s. 6d. be £3 9s. 7d., how much is that in the pound?

2. How much loaf sugar at 11d. per lb. is equal in value to 3 qrs. 7lbs. of moist sugar at 6½d. per lb.?

3. I buy goods for £600, ready money, and sell them directly for £680, giving 3 months' credit, what is gained per cent. per annum?

SECTION III.

Express the sums of money mentioned in the following questions, in the decimal coinage; work the sums decimally, and reduce the answers to the present currency:

1. A spoon costs 7s. 9d., how many dozen can be bought for £44 8s. 3d.?

2. A man who owes £2348, pays 12s. 9½d. for every pound which he owes, how much does he pay in all?

3. What sum of money is that which being lent at simple interest will in 8 months amount to £297 12s. and in 15 months to £336, and at what rate per cent.?

SECTION IV.

The following questions are to be worked decimally, and the answers given in the decimal coinage.

1. In what time will £188 3 florins 2 cents amount to £192, 1 florin, at 5 per cent. per annum?

2. A bankrupt's effects were worth £4265, and his estate paid three dividends of 2 florins 5 cents, 1 florin 1 cent 8 mils, and 2 florins 9 mils, in the pound, respectively; what was the whole loss sustained by his creditors?

3. If £2843 7 florins 5 cents be due from London to Paris when £1 is worth 25 francs, how much must be remitted when a guinea is worth 27 francs?

SECTION V.

1. What is the cost of building a wall 1 mile long, 6 feet high, and 2½ bricks thick, at £13 3s. 6d. per rod?

2. Zinc sheets, are 7 feet long and 2 ft. 8 in. wide; how many such sheets would be required to cover a roof 50 feet long and 13 ft. 6 in. wide? Each square foot of the zinc weighs 25 ozs., and costs 6½d., what would be the cost and weight of such a roof?

3. One bushel of cement mixed with two of sand will cover 3⅓ square yards when laid on one inch thick; the cement costs 1s. per bushel, the sand 5s. 6d. for 20 bushels, and the labour 1s. 7d. per square yard; what is the cost of plastering a house-front 40 feet high and 70 feet long?

SECTION VI.

1. Paper hangings are sold in pieces 12 yards long and 21 inches wide, how many pieces are required to paper a room 20 feet long, 15 feet wide, and 13 feet high; and what does the work cost when done with paper at 6s. per piece, allowing 1 piece in 7 for waste, and 1s. 10d. per piece for hanging?

2. How many deal planks 10 feet long, 11 inches wide, and 2½ inches thick are required to plank a floor 20 feet 2 inches wide and 30 feet long, and what is the cost of the timber at £7 per load of 50 cubic feet, and £1 per load for sawing and carting?

3. The mortar for a rod of brickwork requires 1½ cubic yards of lime at 12s per yard, and 3 cubic yards of sand at 3s. 6d.; what is the cost of the lime and sand required for building a circular tunnel whose internal diameter is 6 feet, and which is 3½ bricks thick and 100 yards long?

FEMALES.

ARITHMETIC.

(*Three hours allowed for this Paper.*)

Candidates are not permitted to answer more than one Question in each Section.

SECTION I.

1. What is meant by Numeration and notation? Multiply 527 by 290, and explain each step in the process.

2. What is the meaning of the terms *dividend*, *divisor*, *quotient?* Divide 3275 by 9, and explain each step in the working.

3. Write out the notes of an introductory lesson on fractions.

SECTION II.

1. 1175 casks contain each 3 gallons, 3 quarts, 3 pints, and 3 half pints; how much do they all hold?

Make out a bill for the following articles:—

39	yards of Irish Cloth,	at	2s. 4d.	per yard,
17$\frac{1}{2}$	yards of Muslin,	at	7s. 2$\frac{1}{2}$d.	”
13$\frac{1}{4}$	yards of Cambric,	at	10s. 6d.	”
27	yards of Linen,	at	2s. 5d.	”

2. Divide £357 12s. 2d. amongst 3 men, 4 women, and 6 children, giving to each man twice as much as to a woman, and four times as much as to a child.

What quantity of Shalloon that is three quarters of a yard wide, will line 7$\frac{1}{2}$ yards of cloth that is 1$\frac{1}{2}$ yards wide?

3. Find, by practice, the value of

371$\frac{3}{4}$ at £4 13s. 7d.
39 cwt. 0 qr. 10 lbs., at £1 17s. 10d. per cwt.

How far will a man travel in 27 days of 10 hours each, at the rate of 3 mls. 1 fur. 13 po. per hour?

SECTION III.

1. Add together $\frac{3}{5}$, $\frac{4}{5}$ of $\frac{1}{3}$, and 9$\frac{3}{20}$.

Find the sum of $\frac{2}{3}$ of a yard, $\frac{3}{4}$ of a foot, and $\frac{3}{8}$ of a mile.

2. A person has $\frac{3}{5}$ of a coal mine, and sells $\frac{3}{4}$ of his share for £171; what is the whole mine worth?

If $\frac{3}{5}$ of a yard cost $\frac{7}{12}$ of a £, what will $\frac{6}{15}$ of an English ell cost?

3. Divide ·04176 by 713·5. Express $\frac{1}{25}$ decimally. Reduce 10 ozs. 18 dwts. 16 grs. to the decimal of a lb troy.

SECTION IV.

1. What is the interest of £284 10s. for 2 years, 4 months, and 25 days, at 3$\frac{1}{2}$ per cent. per annum?

2. If the carriage of 5 cwt. 3 qrs. for 150 miles cost £3 7s. 4d., what must be paid for the carriage of 7 cwt. 2 qrs. 25 lb. for 64 miles, at the same rate?

3. Three persons make a joint stock. A puts in £184 10s., B £96 15s., C. £76 5s.; they gain by trade £220 12s.; what is each person's share of the gain?

SECTION V.

1. What is meant by balancing an account? Give an example.

2. Explain the uses, with examples, of the following books:—Day-book, Cash-book, Invoice-book, Bill-book, Ledger.

SECTION VI.

1. Explain the principle by which the mixed number $3\frac{2}{5}$ may be reduced to an improper fraction.

2. Show the correctness of the rule for the division of fractions, namely, "Invert the divisor and proceed as in multiplication."

3. Explain the meaning of the terms, *ratio*, *proportion*, and shew why in a Rule of Three sum we multiply the second and third terms together, and divide by the first.

EXAMINATION OF CANDIDATES FOR QUEEN'S SCHOLARSHIPS.

CHRISTMAS, 1854.

SCRIPTURE AND CATECHISM.

(Three hours allowed for this paper.)

1. Give the meaning and show the appropriateness of the following names—

Eve
Seth
Noah
Israel
Bethel
Joshua
Samuel
Hebrew

2. On what different occasions do we hear of Miriam, the sister of Moses?

3. Name, in chronological order, the most celebrated of the Judges of Israel: and write a short account of *one* of them.

4. Name the principal feasts of the Jews, and mention the festivals which correspond to them in the Christian Church. Why should there be any such correspondence?

4, Write out, in their order, the prophecies of a Saviour which you find in the Pentateuch, mentioning by, or to, whom they were given.

6. Explain the following passages, and write out as much as you remember of the context of *one* of them—

a. Ye are the salt of the earth.
b. Other sheep I have, which are not of this fold.
c. Suppose ye that I am come to give peace on earth?
d. God is not the God of the dead, but of the living,

7. Write out a short summary of our Lord's conversation with the woman of Samaria.

8. Show the *prophetic* character of some of our Lord's parables.

9. Write out what we know from Scripture of the history of St. John the Evangelist.

10. Give a brief outline of *one* of the following discourses—
   a. St. Peter's sermon on the day of Pentecost.
   b. St. Stephen's apology.
   c. St. Paul's preaching at Athens.

11. What circumstances are recorded in the Acts of the Apostle in connection with—

Lystra
Philippi
Thessalonica
Antioch
Ephesus ?

12. " A member of Christ, a child of God, and an inheritor of the kingdom of heaven." Explain these expressions, and illustrate them by reference to Holy Scripture.

13. Show from the Catechism the appropriateness of the names *Godfathers*, *Sponsors*, *Sureties*.

14. What is a *Creed* ? How many Creeds are received by our Church ; and in what parts of its service are they used ? Write out anything you know about *one* of them.

GRAMMAR.

1. Write out a paraphrase of the following passage, before attempting any other answers, and parse the words printed in italics

For meanness of employment, *that which* is most traduced in learned men, is *that* the government of youth is allotted to *them ;* which age, because it is the age of least authority, is transferred to the *disesteeming* of those employments which are conversant *about* youth. But *how* unjust this traducement is (if you will reduce things from popularity of opinion to measure of reason), may *appear* in that we see men are more curious what they put into a new vessel than into a vessel *seasoned ;* and what would they lay about a young plant, than a plant *corroborate* ; so as the weakest terms and times of all things *use* to have the *best* applications and helps. And let it be noted that, howsoever the modern looseness or negligence hath *taken no* due regard to the choice of Schoolmasters and Tutors, yet the ancient wisdom of the best times did always make a first *complaint* that States were too busy with *their* laws, and too *negligent* in point of education.

Write out in three columns the words in this passage derived from Saxon, from French, and from Latin.

2. Arrange in their proper classes, according to the divisions of articulate sounds, the following letters :—

b. d. f. k. l. m. n. p. q. r. t. v. x.

3. Give a list of words illustrating the vowel sounds in the English language.

4. Enumerate the cases, moods, and tenses used in the English language.

Name the past (indefinite) tense, indicative, and the past (or passive) participle of the following verbs :—

Awake, arise, bear, begin, climb, draw, drink, flee, fly, hang, lay, lie, read, ring, ride, set, seat, sit, speak, spring, swim, tear, work.

Where two forms exist, give them both, and mark any that you consider obsolete. How have double forms originated in these verbs ?

5. Give a list of auxiliary verbs.

What are the rules for the use of the Infinitive Mood?

Parse the following,—

Do tell me if you can.
I would if I could.
Do not do what he asks you.

6. Explain the following terms:—

In apposition, used absolutely, active, passive, transitive, intransitive, orthoepy, orthography, euphony, derivative, compound, inflection, declension, conjugation

7. Explain the metre of the following verses:—

"How sleep the brave who sink to rest
By all their country's wishes blest?"

"As near Porto-Bello lying
On the gently-swelling flood,—"

"Warriors and chiefs! should the shaft or the sword
Pierce me in leading the host of the Lord,—"

"What beauties does Flora disclose,
How sweet are her smiles on the Tweed!"

"High and embosomed in congregated laurels,—"

"Befell it, in that season, on a day,
In Southwark, at the Tabard, as I lay,—"

"The song began from Jove,
Who left his shining seats above."

"Deserted at his utmost need,
By those his former bounty fed."

What is necessary to make a perfect rhyme? Apply your rule to the two last lines.

8. Write out the following names in a column according to chronological order; add two other columns, and in them, on a line with each name in the first column, write (*a*) the reign under which the author lived, (*b*) his principal work or works:—

Addison, Bacon, Burke, Chaucer, Cowley, Cowper, Defoe, Dryden, Goldsmith, Gray, Hume, Johnson, Pope, Robertson, Spenser, Swift.

MALE CANDIDATES.

Candidates are not permitted to answer questions in more than *one* of the three sections into which this paper is divided. *No marks will be given for papers in which this direction is not observed.*

Three hours allowed for this Paper.

EUCLID—(FIRST SECTION.)

1. If two angles of a triangle be equal to each other, the sides also which subtend, or are opposite to the equal angles, shall be equal to one another.

2. Draw a straight line perpendicular to a given straight line of an unlimited length, from a given point without it.

3. If a side of any triangle be produced, the exterior angle is equal to the two interior and opposite angles; and the three interior angles of every triangle are together equal to two right angles.

4. Equal triangles upon the same base and upon the same side of it, are between the same parallels.

A line drawn through the middle points of two sides of a triangle, will be parallel to the third side.

5. If a straight line be divided into any two parts, the square of the whole line is equal to the squares of the two parts, together with twice the rectangle contained by the parts.

6. In every triangle, the square of the side subtending either of the acute angles, is less than the squares of the sides containing that angle, by twice the rectangle contained by either of these sides, and the straight line intercepted between the acute angle, and the perpendicular let fall upon it from the opposite angle.

7. If a point be taken within a circle, from which there fall more than two equal straight lines to the circumference, that point is the centre of the circle.

8. Draw a straight line from a given point, either without or in the circumference, which shall touch a given circle.

9. The angles in the same segment of a circle are equal to one another.

10. If two straight lines cut one another within a circle, the rectangle contained by the segments of one of them, is equal to the rectangle contained by the segments of the other.

ALGEBRA—(SECOND SECTION.)

1. Simplify $a - \left[b + c - \left\{d + b - (c + 2b - a + d)\right\}\right]$

2. If $x = \dfrac{ab}{b + c}$

show that $(x + a)\,(x + b) + (c - x)\,(a + x) = ac$.

3. If $2a = x + y + z$, $\quad 2b = -x + y + z$

$2c = x - y + z$ and $2d = x + y - z$

show that $a^2 + b^2 + c^2 + d^2 = x^2 + y^2 + z^2$

4. Divide $\dfrac{y - 5}{y + 5} - \dfrac{y + 2}{y + 4}$ by $y - 1$

and $a^2 + b^2 - c^2 + 2ab$ by $\dfrac{a - b + c}{a + b - c}$

5. Solve the following equations—

1. $(x + 1)\,(x + 2) - (x - 1)\,(x - 2) = 18$

2. $\dfrac{7 - x}{2} - \dfrac{9 - 2x}{6} = 1.$

3. $ax + by = c,\ lx + my = p.$

4. $\dfrac{x - 4}{x + 3} = \dfrac{x + 3}{x - 3} + \dfrac{7x}{6}$

5. $(2x - 3)\,(x + 4) = 102.$

6. $\left.\begin{array}{c} x^2 + 2ax + y^2 = (a + b)^2 \\ x - b = y - a \end{array}\right\}$

6. A is twice as old as B, and in eleven years their ages will be in the ratio of 5 to 3; find their ages at present.

7. If 3 ounces and 160 grains cost £12 9*s.* 7*d.*, and 1 ounce and 80 grains cost £4 10*s.* 10¼*d.*; how many grains are there in an ounce?

MENSURATION AND INDUSTRIAL MECHANICS.—(THIRD SECTION).

1. Find the area of a room 14ft. 6ins. wide and 20ft. 9ins. long.
   (1) By cross multiplication.
   (2) By reducing the sides either to inches, or to feet and fractions of a foot.

2. Give the rule for finding the area of a triangle when the sides are known.

3. If the sides of a triangle be 6 and 8ins. long, what must be the length of the third side that the triangle may be the greatest possible?

4. A uniform heavy rod 12ft. long, and 6lbs. in weight, rests horizontally upon two props which are respectively 3 and 4ft. from the ends of the rod; find the pressure upon each prop.

5. What force acting parallel to the place would be required to support a weight of 2 tons upon a smooth inclined plane, the height of which is 15ft. and the length 25ft.? and what amount of work will raise the weight from the bottom to the top of the plane?

6. What is meant by *friction* and the *coefficient of friction?* If the friction be just sufficient to support the weight in the last question, what must be its coefficient.

SCHOOL MANAGEMENT.

Three hours allowed for this Paper.

[Write the first line of your first answer as a specimen of copy-setting in *large hand*, and the first line of your second answer as a specimen of copy-setting in *small* hand.]

1 What do you understand by the *organization* of a school? Describe that of your own school; and state what part you have taken in the instruction the children during the last two years of your apprenticeship.

2. At what times, and in what manner, has your teacher given you special instruction out of school hours during your engagement as an apprentice?

3. Describe the *apparatus* in your school. How do you suppose teachers long ago managed to do without such apparatus? From your answer, show the benefits derived from its introduction, 1st, by the teacher, and 2nd, by the scholars.

4. What is the best arrangement of the desks in a school? Give your reasons.

5. Mention some of the uses of school registers. Which of them should be kept by the principal teacher; and which by the pupil teachers or other assistants?

6. Mention the successive steps by which young children should be taught to read.

7. What do you understand by the *individual* and *simultaneous* methods of teaching? Should either be followed exclusively? How may they be combined?

8. Describe the manner in which you have been instructed in the *art of teaching.*

9. Mention by name, the *text books* which you have used in pursuing your own studies. Did you buy them at the full price, or how otherwise did you procure the use of them.

What were the general regulations for the supply of books in your school?

10. What lessons should children be required to learn *out of school?* What are the difficulties in the way of their doing so? How may they be overcome?

11. What are *notes of a lesson?* In what manner have you been instructed to prepare, and use, them?

12. Write *two* sets of notes of a lesson, on *one* of the following subjects:—The first for a *junior*, and the second for a *senior* class in a school.—

Iron.
The Horse.
Obedience to Parents.
Truthfulness.

ARITHMETIC.

Three hours allowed for this paper.

1. Explain the process of multiplying 1234 by 506.

2. Find the ratio between the ounce Troy and the ounce Avoirdupois.

3. Multiply £537 17s. $10\frac{1}{2}$d. by 365 and divide the product by 73.

4. Find a fourth proportional to 10, 15, and 40. In what other order will the four numbers form a proportion?

5. Extract the square root of 6789265609.

6. How many times will a wheel $16\frac{1}{2}$ feet in circumference turn round in a distance of 24 miles 3 furlongs 25 poles?

7. How many yards may be bought for £12 12s., if $7\frac{3}{4}$ yards cost 19s. $4\frac{1}{2}$d.?

8. Find the time in which the interest on £750 10s. will amount to £712 19s. 6d. at $4\frac{3}{4}$ per cent.

9. Find the cost of 2864 articles at £4 13s. $10\frac{1}{2}$d. each.

10. Add together $2\frac{3}{4}$, $5\frac{6}{7}$ and $8\frac{9}{10}$; divide the sum by the product of $\frac{19}{28}$ and $25\frac{4}{5}$.

11. Multiply ·0082 by 7·05 and divide the product by ·0000705. Reduce each of these decimals to fractions in their lowest terms, and perform the same operations upon them.

12. In which stock is it more advantageous to invest, in the $3\frac{1}{4}$ per cents. at $91\frac{3}{8}$, or in the $3\frac{1}{2}$ per cents. at $93\frac{5}{8}$? How much stock may be purchased by investing £1000 in each?

13. What must be the selling price of an article which cost £20 17s. 6d. to gain $12\frac{1}{2}$ per cent.?

GEOGRAPHY AND HISTORY.

Three hours allowed for this Paper.

1. Draw a map of the Southern Coast of England, from Dover to the Land's End, laying down the principal Headlands and Sea-ports. Place in your map the lines of longitude.

2. Draw an outline map of the county in which your school is situated; placing in it the names of six of the principal towns; the rivers; and the places of historical interest.

3. Enumerate the principal British Colonies and Dependencies. What are the chief productions of Ceylon?

4. Mention in order the different countries lying to the right and left of the route of the Overland Mail to India?

5. Draw a map of the Crimea; give a brief account of its successive occupiers or conquerors.

6. In what countries are the camel—lion—elephant—alligator, and reindeer respectively found? Describe the natural history of one of them.

7. Give the date of the accession of Edward the First. Mention the principal events of his reign.

8. State the circumstances attending the capture of Jamaica by the English.

9. At what periods did the following persons flourish, and for what are they respectively celebrated:—

Francis Bacon — Bede —Newton — Milton — James Watt—Coke—Nelson—Shakspear?

10. On what grounds did James I. succeed to the English throne? What were the principal events of his reign?

11. Give a brief summary of the main causes which led to the dethronement of James the Second.

12. What portions of England were chiefly settled by the Danes? How do you distinguish these parts, by means of the names of places, from those settled by the Angles or Saxons?

FEMALE CANDIDATES.

DOMESTIC ECONOMY.

Three hours allowed for this Paper.

N.B. At the end of each answer let each candidate name the text book (if any) which she has used.

1. What do you understand by *Domestic Economy?* What instructions have you received in it?

2. Why is great care necessary with respect to the *ventilation* of a room? Write out a few *practical* rules on the subject.

3. What is the cause of bread becoming *heavy?* How may it be prevented from doing so?

4. What are the effects of roasting, boiling, and stewing upon meat? Which process is the most economical? Why?

5. How do you boil potatoes? Give reasons for the time you allow.

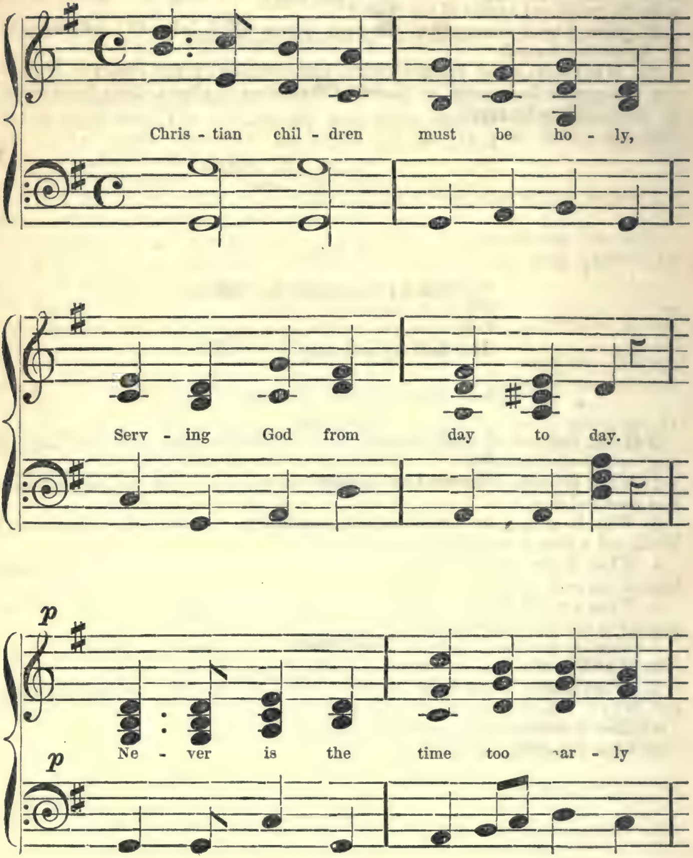
6. Which is best, an earthenware teapot, or a metal one? Why?

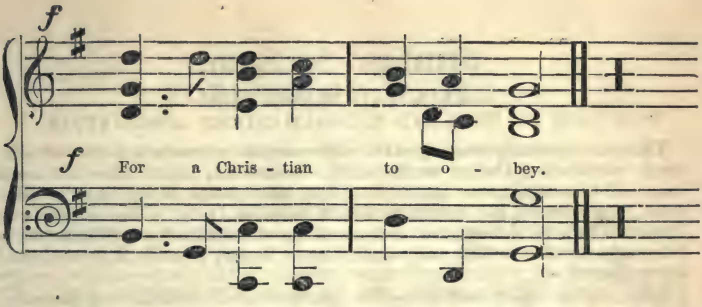
7. What makes water *hard* or *soft?* Which is the best for washing clothes in? Why? Which is the most wholesome to drink?

8. How would you treat a bruise, a burn, or a cut?

9. Give directions for making a bed.

Christian Children.


Chris - tian chil - dren must be ho - ly,
Serv - ing God from day to day.
p
Ne - ver is the time too ear - ly
p



2nd Verse.

He who is our great example,
Let no moment run to loss,
Not one precious hour He wasted,
From the cradle to the Cross.

3d Verse.

Soon He sorrowed, soon He suffered,
We must meek and lowly be,
Little pains and childish trials,
Ever bearing patiently.

4th Verse.

Soon He showed a Son's obedience;
We must early learn to do
Not our own will, but our Father's,
And be found obedient too.

Educational Intelligence.

DERBY AND DERBYSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The usual quarterly meeting of the above association was held in the Curzon-street Schoolroom, Derby, on Saturday, December 2, 1854. After the usual financial business had been transacted a very able lecture, on the Electric Telegraph, was given by Mr. Ryder, All Saints' Schools, Derby. The lecture was illustrated by several diagrams; and a working model of Cook and Wheatstone's Telegraph, together with a compound Smee's Battery to work it, were shown and explained.

Some of the members present felt the *shocking* effects of a very powerful electro-magnetic machine.

A well-written paper, on Atmospheric Currents, read at the close of the meeting, by Mr. Sowter, Melbourne, excited great interest.

The magic lantern and apparatus, previously ordered by the association, were produced at this meeting, and very favourably reported of by the members who had been appointed to examine them.

W. Bland, Secretary, Little Eaton.

WEST NORFOLK CHURCH SCHOOLMASTERS' ASSOCIATION.

At a meeting held at Wisbeach, Dec. 9th, a deputation was appointed to the annual meeting of the "Associated Body." Mr. Murrow read a paper on the reigns of Richard I. and John. Mr. Orton read a valuable paper upon the Duties and Office of the Schoolmaster, which was well received, and followed by a lively discussion upon the propriety of separate services for children, in lieu of attendance upon church.

The annual meeting of this Society will be held in Lynn, Jan. 20, 1855.

B. Bray, Hon. Sec.

NOTTS AND WEST LINCOLNSHIRE CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The first annual meeting of this association was held at Trinity Schools, Nottingham, on Saturday, December 2, 1854. The meeting having been opened with prayer, an excellent paper was read on the "Education of the Reasoning Faculties," by Mr. Oliff, of Grantham. This gentleman shewed clearly how the usual course of school instruction might be conducted so as to cause the child to reason on the subjects. He more particularly pointed out Euclid as being eminently conducive to this end, and by simple illustrations pointed out the way in which it might be made intelligible to the children in our schools. It had been successfully taught in his own school, and was found valuable, not so much, indeed, for its own sake, as for the more correct views it enabled the children to form on any subject brought before them, and lead to habits of independent thought.

The annual report was presented to the members, which shewed a balance in the hands of the treasurer.

NOTICES OF BOOKS.

The Relative Importance of Subjects Taught in Elementary Schools. By J. G. Fitch, M.A.—Partridge and Oakey.—This lecture takes up a subject upon which we have often touched incidentally. We hold it to be one of the most important, connected with the successful working of elementary schools, and one on which every teacher should have well weighed and decided opinions. The proper work of such schools must not be jeopardised by over-pressure. Subjects of instruction, good in themselves and very desirable, must not be put in competition with those absolutely necessary. Children with a limited school life must not be made to lose their reading and writing, for the merest smatterings of other things. This surface teaching breeds intolerable conceit, and on moral considerations should be disconntenanced. The power of good and intelligent reading is of itself an education for a poor child, and yet one, we fear, much more rare than is generally supposed.

Mr. Fitch has with great moral courage and equal ability dealt with this subject. He speaks, moreover, not as an educational amateur, but as an experienced and successful teacher. We give the opening paragraph of the lecture and recommend our readers to study carefully the remainder.

"The position of an elementary teacher in these times is a somewhat embarrassing one. He finds himself beset with solicitations to add new subjects to his school course; from one quarter he is urged to give increased attention to music; from another, the claims of elementary instruction in art are put forth with great earnestness; then the importance of a sounder knowledge of the science of common things becomes, in turn, the subject of other recommendations. Now, though it is probable that no teacher can hear the arguments on these several subjects, without feeling their cogency, yet the fact remains, that children do not stay longer in elementary schools than they did; and that, in many of such schools, the masters and mistresses can scarcely command any higher teaching power than they possessed before. Thus a serious question arises,—How are these new claims to be dealt with? Granting that only a certain number of hours in a week are available for instruction, how can they best be distributed?"

Second School Book to Teach me Reading and Spelling. By W. M'Leod—(*Gleig's Series.*)—Longman and Co.—This is really a good book, both for matter and arrangement. Besides the well-selected lessons for spelling at the head of each section, there are copious lists of words having silent letters, together with an extended table of a large class of words alike in sound, but differing in meaning.

The following extract from the introduction, shows that Mr. M'Leod has a just view of the connection that should exist between the reading and the gallery lesson—"The lessons, which contain a vast amount of information on 'common things,' will be highly useful in schools where collective or gallery lessons form an important part of education. If the gallery lesson, and that in the book which bears on the same subject, follow each other, there will be a harmony between the two, which is too frequently overlooked. The pupils' knowledge will thus be concentrated, and more thoroughly worked into the understandings, and therefore more available for use. Such an arrangement will also tend to economise the labours of the teacher."

Light and Heat—Magnetism, Voltaic Electricity, and Electro Dynamics. By T. Tate—(Gleig's Series)—Longman and Co.—These introductory manuals are to be heartily commended for their great simplicity of style, carefulness of method, and numerous illustrations. The great number of simple experiments should make them popular with those who attempt the elements of science with children.

Correspondence.

Sir,—In reply to G. H. F., I would venture a few words on learning the "Elements of Geometry." These are principally designed to draw out and strengthen the reasoning faculties, hence they should be taught after the method best adapted to exercise these powers of the mind, and not too greatly to tax the memory, which latter, in this branch of study, I consider to be even prejudicial. The student should first carefully commit to memory the enunciation of a proposition, then effect such part of the construction as the latter will warrant, after which he should proceed step by step, quoting the proofs for each, till the construction is complete. He may then proceed with the demonstration-

By this process the work goes on systematically; the reasoning going on in the mind is assisted by the several parts of the figure being, in their proper order, presented to the eye; while there is something very pleasing in witnessing how each part harmonizes with those in contact with it in forming a symmetrical whole.

By the second method, in which the construction is first effected, and followed by the enunciation and demonstration, systematic reasoning is not as fully developed; and a worse evil than this too often unhappily follows. By this method the student frequently converts this noble science into a matter of mere memory; in which case, I conceive his knowledge of this branch to be worse than useless, for the reasoning powers are thereby suffered to lie dormant, while the memory is weakened by an over-burdening of useless facts. This defect is easily tested by placing the letters of any proposition differently to what they are in the book; and, if the latter has been the student's method of learning, he will be quite at a nonplus how to proceed.

In contrasting the two methods, we may compare the former to a mechanic who understands his business thoroughly, and can work from his model in what position soever it may be placed; and the latter to one who must always have his model in a certain position, so that he may be able to work successfully. Hoping you may find space for these few remarks in your useful periodical.

A T M

DECIMAL COINAGE.

Sir,—In your impression for this month, I read three letters in reference to my previous communication, published in your number of November last. May I be permitted to remark that your correspondents seem to have quite overlooked the obvious fact that my example had reference to a *general* and not a particular case. Had I adopted the method proposed by "E. W.," for example, I should have justly been open to the charge of taking an easy case for my own purpose. How would "E. W.," or "Decimals," work, by practice, 4253 at 19s. 4¼d.?

With regard to "D.P." I must confess myself to be at a loss to understand by what process he determines that "19s. 4d.=966.6 mils *exactly*." This example is worked out incorrectly on *that* supposition. But perhaps it is a press error, for 966·6. In that case I beg to refer "D.P." to your October number, where he will find that you supplied me with the value "19s. 4d.=966.6666 mils nearly," upon which my last example was founded. What "D.P." means by his working the question "by shillings" I am at a loss to comprehend; and yet his remark—that in that case "it is not necessary to take pence" would seem to indicate that he has not sufficiently studied the question before us. I would invite him to peruse Mr. Rathbone's last pamphlet upon Decimal Coinage. Your correspondents seem to think that I am opposed to the change contemplated in our money—such is not the case; I have been for some years past, and am still an advocate for a decimal system of money, weights and measures, but I have been compelled to reject the particular plan put forth by the Decimal Association, after a careful examination of its details, from a firm and increasing conviction that its adoption would be productive of much inconvenience and positive wrong to the poorer classes of the community.

Apologizing for again intruding upon your pages,

I am, Sir, yours obediently,

P M P

PAPERS FOR THE SCHOOLMASTER.

No. 48 FEBRUARY 1, 1855.

The Schoolmaster.

The result of the examination for Queen's Scholarships has been announced, and we publish the list of the names of the successful candidates in this number. There has, we believe, been found ample room in the various Normal Schools to receive them, and indeed a far larger number than have presented themselves for examination. It becomes a question of great interest to the Committee of Council on Education how it happens that this result fails to substantiate the expectation, founded upon Mr. Moseley's figures, that the number of Queen's Scholars would far exceed the means for their accommodation. It is a problem, with which we shall not at the present moment meddle,—worth, however, the pains of its solution—how it happens that so few, comparatively, of our Queen's Scholars come forth from the most busy and important towns, and so many from comparatively unknown and retired localities? At the present moment we would rather press the *fact* and its consequences upon the notice of young people, who have not enjoyed the privilege of being apprenticed as Pupil Teachers. The information cannot be too widely circulated by clergymen and other friends of youth that, by a recent Minute, published in an earlier number of this periodical, ordinary students, who have resided one year in a Training College, are entitled to compete for a Queen's Scholarship, which will free them from expense during their second year of residence. We are sure that a large number of promising young people, of the right kind, earnest, thoughtful, and of missionary spirit, who for the last few years have been deterred by want of funds, and by fear of being far outstripped by more privileged competitors, may be induced to seek a field of labour so honourable to those who rightly enter on it. We are inclined at the same time to think that an opinion for some time entertained from the beginning, and lately enforced by H.M. Inspector, the Rev. H. W. Bellairs, is gaining ground, that some alteration is needed in the date of apprenticeship. The age in a boy's life, immediately subsequent to that date, from 13 to 16, is that in which any true natural fitness, whether in respect to mental or moral character, can be ascertained. To fashion a boy's after employment for life irrevocably at that tender period is, in an equal number of cases, to do despite to his natural taste, and perhaps to make him a bad man, by driving him to lower pursuits for enjoyment which he cannot find in his profession. It is a lottery. The present system tends to form the very best and the very worst Schoolmasters. It presents the finest discipline that could be devised by man's ingenuity to the boy that proves naturally qualified—the worst possible for him who gradually, but too late, developes an aversion for an occupation into which no man must be driven. The old Roman adage will apply to the schoolmaster as to the poet—"Nascitur, non fit."

Shall we congratulate our readers that larger measures seem looming in the House of Commons. Both sides of the House have given evidence that Popular Education has engaged their attention during the vacation. On the day we write Sir J. Pakington announces his measure, and the next, Lord John Russell, the Lord President, an old friend of the people's advancement, has promised to propose another.

A Good Attendance.

The Teacher, when provided with an adequate staff of assistants, satisfactory resources in apparatus, a sufficient amount of space, and last, but not least, an unlimited supply of fresh air, derives one of the greatest of his school-pleasures from the sight of a well-filled school-room. In some cases the pleasure may be actually enjoyed; in others it must, we fear, be classed among the "Pleasures of hope." For we hear teachers of personal efficiency, and in possession of most of the adjuncts which we have named, complaining, nevertheless, that the standard of age in their schools is perpetually lowering,—that it is impossible to produce any lasting effect with an uncertain and fluctuating attendance; and that the removal of their children to work at an early age is one of the most disheartening of their difficulties. Of the truth of the first assertion, we may have ocular demonstration; to the second, we mentally acquiesce; in the last, we imagine we find the secret cause of one of the greatest hindrances to education, and a clue which may help us to remove the difficulty. For a difficulty, we confess we find, a puzzling question to solve, even when we have reduced it to a formal statement. The cause which chiefly militates against a good and continuous attendance is plainly, in the greater number of cases, a question of "school" against "work;" not that work is more pleasant, but that it appears to the parent more remunerative. But, as said Sir Roger de Coverley, "there is much to be said on both sides." We are apt to understate the question of school-fees, as though they alone formed, in the eyes of the parent, the standard of educational value; the question is not simply whether we can offer at school advantages which compensate the mere outlay of the school-fee, but whether they are such as outweigh, in addition, the actual gain which the child's labour would be producing. Subtracting the cost of school from the parents' means of subsistence, we must, in a practical estimate, add to its value the amount which the child, if otherwise employed, would be earning. Moreover, this great difference (one which, judging from our own point of view, we, with many similar ones, overlook), exists between the cases of the children of the comparatively independent and of the working classes—that while the middle-class tradesman, the professional man, the man in possession of any competence, supports his children during the school period out of his own resources, the working man, in his often hard struggle to obtain the bare necessities of life, is compelled to avail himself of the earnings of his family, which, however trifling when considered separately, amount, as a total, to a sum which is indispensibly required for their subsistence. The man of the one class may abridge himself of his comforts in order to afford his children an education, of which he rightly appreciates the value; the other, even did he possess the appreciation, can make no reduction in his necessities. The wants of to-day are too all-absorbing; education must give place to bread-winning. But, nevertheless, while in some cases the daily earnings of the child are indispensible to the family support, in others they merely add a surplus, to be wastefully expended, to what is already a sufficiency. It is between these cases that we must draw a distinction. The early employment of children resolves itself, we fear, ultimately into the question of cheap labour, and in this view the cause of education has to gain and stand its ground as much with the employer as with the employed. It is from this cause that we look wistfully to the future for an extension of educational legislation; but, until the arrival of such a reinforcement, we must trust for success to the unaided efforts of the friends of education. We cannot think any such extension would bear hardly upon such calls as we have mentioned, seeing that it must deal at the outset with well-defined branches of labour, and operate more immediately in the particular localities of well-remunerated industry; and must not be of such a nature as would positively amount to a prohibitory enactment against a child obtaining wages for its work, but of one which would simply superadd the necessity of obtaining, at some time and place, a certain amount of contemporaneous education; while it would consequently reduce its cost to the absolute outlay required for school expenses, and that subtracted from the earnings of the child. The fact that there are many branches of manufacture in which the labour of an adult would, under any circumstances, be as unremunerative as it would be "puerile," compels us to look for a possible legislation, not as directed against child-employment, but as effective for, at least to some extent, child-education. It would meet, perhaps, as far as practicable at present, the cases of those children whose employment is an apparently necessary evil. It is true it would not reach those cases in which the acquisition of their earnings is prompted by a mere short-sighted, wanton selfishness on the part of the parents; but while the children are not in either case at present receiving any education, it would secure at least a certain amount in both. No legislation can touch the case of a man who can afford to educate his child but will not; nor can it do away with that superiority of educational advantages, which is ever one of the social distinctions between the comparatively rich and poor. We arrive then at the conclusion, that a deficiency in the attendance of a school, or the lowness of its standard of age, may be referable to two causes: one, that there are children whose parents cannot afford to send them to school under existing arrangements; the other, that there are parents who can, but who, from various motives, do not. We feel sure that, apart from such legislative enactments as we have supposed, much might be done to meet both these evils; and which, were legislation to occur, would become a necessity. The education of a people is not to be effected in one generation; we may work manfully and well, but it is wise after all to consider ourselves as being in but a "transition period," and to feel that we must adapt our tactics to our position. The pioneers in the backwoods of ignorance, it will be something to have effected even a "clearing" as the result of our labours. We may, indeed, survey the ground, and observe its capabilities—the "city" must be a thing of the future. We are, perhaps, too wedded to a set of "canonical laws" for education; we open and close our school-rooms at time-honoured and traditional intervals; to mourn, it may be, at their emptiness. We are in some degree open to the charge contained in the line,—

"To party he gave what was meant for mankind;"

anxiety for the success of a school-formula has taken the place of education. We apparently have to learn, that a large amount of education may, and must, at present, be given in early morning, in evening, and in half-time schools; and to find, as we assuredly shall, as its benefits become diffused and valued, that they will have a beneficial re-action upon the "good attendance" of the scholars of the well-conducted day-school. A feeling of the benefit of education once created, will not be slow in extending itself; and on this we must depend for the success of our schools. If a child can earn from one to two shillings a week, while the school fee is most moderate, and the earnings of the parents suffice for the support, and would for the education, of the family, it is not the cheapening of instruction which is likely to induce them to transfer the child from work to school; rather, the offer of education at a full and fair price is more likely to lead them to estimate it at its proper value, and to forego the surplus of their children's earnings, in order that they may reap its benefits. Let the education offered be thoroughly sound, practical, and, more or less slightly, in some cases, local, and we shall have no doubt as to the results being successful. It may be that the complaints of non-attendance, or of the lowness of age, may have their cause in the children, or rather the wants, of the locality having outgrown the standard of instruction. We have indicated some of the causes of a widely-uttered complaint, which may, we believe, in many instances, be removed by a careful investigation into the causes which give rise to it, and the application of suitable remedies, at the risk even of the charge of innovation.

M. U. R.

Instruments of Education.

NORMAL SCHOOLS.

By Rev. C. H. Bromby, M.A., Cheltenham.

[The paper from which these extracts are taken was read at the Educational Exhibition, and though advertised for insertion in the volume published by Routledge and Co., has been accidentally omitted in the body of the work.]

I am bound by my engagement to enter into the question of the *instruments* of education. I use the term in the sense in which the Germans do pædagogy, *i.e.*, I include both the didactic or department of mere instruction, as well as education, properly so called; and my inquiry will simply resolve itself into this. Assuming that the teacher is a trainer of children, *i.e.*, understands the aim of education, what is the mission of the elementary school? Now, the school of the poor must be emphatically their home, and the master and mistress the parents. They are bound to regard their highest interests, and cultivate their moral and religious faculties as feelingly as is a right-minded and judicious parent. But they must do what parents cannot do—prepare them for the active discharge of duties as members of society.

The instruments of right education may be thus classified:—

1. *The school-room*—Its arrangements, furniture, management, companionship, and occupation.
2. *The mode of instruction*—Class-method or collective.
3. The teacher, and his principles and expedients of government.

I. The school should be so characterised by its neatness and taste as to exercise a beneficial and refining influence on the character of children. I know not whether we are imitating the example of other countries, or to what we owe it, but there is a growing improvement in this feature of our schools, from which we augur the happiest effects on the homes of the poor. These homes must be made more attractive, in order and cleanliness, if we would preserve the youths from those sinks of impurity and hotbeds of vice—the alehouses. I only claim for schools that they should be simple and inexpensive, but tasteful and attractive. They should present to the eye objects of true beauty and pure taste—but they should be types of what would not be out of place in the dwellings and among the furniture of the industrious mechanic.

II. *The instruction* or methods adopted in the elementary schools.—Perhaps the shortest manner of dealing with this head will be to propose the inquiry whether the class or the collective method is to be preferred. Now, in determining this question, we must keep steadily in mind the fact that we have to struggle with the feeling of parents that reading, writing, and arithmetic are all the accomplishments requisite for their children, whence it follows that until these subjects are mastered, and unless the collective method can be made to bear upon them, whatever arguments for higher intellectual or moral culture can be adduced, it will be utterly ineffectual. Fortunately, these three subjects, reading, writing, and arithmetic, are moral as well as mechanical instruments, in so far as they tend to form those industrial habits in the boy, which go to make the industrial man; and if a man is to become a thoroughly good workman hereafter, much will tend towards that result if he be made a thoroughly good writer and reader, and calculator, even though these accomplishments were merely mechanically attained in a way that did no more than satisfy the parents' expectations. Still I claim for the collective method its especial object of facilitating mental operations, by which the analysis of sentences and the meaning of the context may be conducted in *reading ;* and *arithmetic* be made, by an exhibition of its principles, a *real* instrument of mental science. I will repeat the caution, that however much we may value collective teaching, we must most carefully abstain from exciting the jealousy of parents who have means of measuring the mechanical improvement of their children in penmanship, reading, and casting up accounts, but do not understand real intellectual progress. On this account, though no man can estimate more highly the collective or gallery method in the hands of well trained teachers for the exercise and development of the intellectual faculties, I would deprecate its employment, if the result is to be the multiplication of new subjects at this moment of our educational history, when the term of school life is being diminished. The question is not whether the gallery method is a true one : every good practical teacher, I think, will admit it; but it is this—whether we should introduce to it an unlimited number of new subjects, foreign to the life of the poor man, and handled by the teacher at random, and unconnectedly. My hope is that teaching-books will yet be brought forth, which will comprise what seems essential to a child to know—enabling him to comprehend the principles that enter into the labours of industry, of social philosophy, or political economy, as well as to interpret the familiar and most patent laws of the physical world. For I would not forget that while it is right to make him a more intelligent workman, and to become more valuable to his employer as well as to himself, there is a privilege which, as a man, he has a right to claim, and I claim it for him—of holding communion with the outer world; for we should not make him a man in order to become a *citizen*, but make him a citizen in order to become a *man*. Let our text-books embrace what is really essential in these particulars, and let our masters be made thoroughly conversant with them in a wide and comprehensive sense; and I conceive that the gallery will not be idle, even if only called upon to elucidate and to amplify the teaching-lesson Fulfilling this mission, it will afford its characteristic relief from the irksomeness of a monotonous routine. But the most peculiar office of the gallery is to convey religious instruction, andto serve a moral result. There is no instrument so powerful as this in the hand of a skilful teacher for unfolding the beautiful images of sacred writ, or inculcating its holy precepts. The loveliness of virtue, the example of Christianity, and all that appertains to the Christian man's faith, can be brought vividly home upon the conscience and mind of a youthful gallery of children, whose quick sympathies are wrought on by one who confronts it with a winning eye, and moulds it with a plastic hand. I have known of, and seen results produced upon the conscience of a gallery, as if there were but one conscience there, which no other instrument could. The gallery is the great platform for the exhibition of that important instrument of education—sympathy of numbers, public opinion, tone, or call it what you will—a power for good or evil which lies in the aggregate of sympathising minds. A trained and skilful educator of children, who can exercise and control this mighty power, may achieve results, both intellectual and moral, which leave whipping-posts, and cuffs, and straps far behind. I have seen a rough desperado of a boy, who would brave a flogging from his master with most provoking heroism, cower and lower his head, and melt into the most penitential tears, just because many eyes were turned upon him, and many hearts of his compeers were united in sympathy against him. This is what we mean by sympathy of numbers. Would the teacher, think you, or the divine, move into enthusiasm, or tranquillise into calmness any individual of his auditory as effectively as the congregated masses of his fellow-men?—or would a solitary idolater of that excited crowd of Ephesus, think you, have with his single voice shouted himself hoarse with the cry, "Great is Diana of the Ephesians," unsupported with a thousand more, "*by the space of two hours?*"

I am compelled to omit my remarks under the third head—upon *the teacher and his expedients of school government.*

Of all the instruments of popular education, if I may use the words in a somewhat different sense, the normal school must be the principal. To fail here is to render abortive the entire system which engages the wisdom of the heads of the privy council, the active exertions of all our inspectors, and whatever else is represented by the annual parliamentary grant of £200,000. No policy can be possibly more shortsighted than that which grudges a very liberal support to these institutions, not, indeed, with the view of increasing the luxuries of the students, and rendering them places which they must exchange with regret for spheres of self denying labour (for this would be to escape the precise object of their establishment), but to develope their fullest resources, and to make them the most extensive instruments of usefulness, of which they are susceptible.

I come now to ask—what the great object is that is proposed in our normal schools? I will answer in the words of the Prussian law. "The training of men, sound in mind and body, the inculcation of religious sentiments, and of the pedagogic spirit which is so intimately connected with them. To the knowledge acquired by the primary schools must be added just and extensive views of the art of teaching and of the rearing of children as a whole, and in all its different branches."

The system adopted in Holland begins and completes the education of the schoolmaster in an ordinary school, where he remains some years as a superintendent or monitor, receiving a few lessons in one of the model schools. This system has the advantage of *cheapness*, but while it turns out men perfect in the *art* of teaching, they are necessarily men of mere *routine*, blindly attached to the system of one particular school, reproducing all its minutiæ peculiar to the circumstances of its neighbourhood, or the manner and even the voice of its master. The *science* of education must be little understood, and no large ideas can be expected, nor those advantages which arise from the exhibition of a higher standard. The Prussian system, on the contrary, requires a residence of three years in one of the normal schools, the first two years being spent in attaining a fuller acquaintance with subjects taught in primary schools, the last in the art of teaching and pedagogy. The plan which seems to me better than either, is the one which unites the two systems, requiring at least two years' residence; but instead of separating the two years into first study and then practice, blends the two together from the first, and so interweaves the art of teaching and the science of it, the study of pedagogy with the practising school, that every day's work shall have some direct or indirect tendency towards it. I have said two years rather than three, the term required in most of the states of the Germanic Confederacy, feeling, as I do, that the different circumstances of the two countries justify this departure from their rule. I am led from experience to believe that, rather than defer the period when the profits of his profession may be reaped, the best part of our pupil teachers will be just those who will be tempted to transfer their energies and invest the capital which they have derived as pupil teachers, at the expense of the state, in the more immediately remunerative field of commercial life. It is indeed worthy of remark, and I would call the attention of those concerned to the fact, that, of the many hundreds of pupil teachers who were presented to the Normal College last Christmas, as candidates eligible for Queen's Scholarships, the great majority of places from whence they came are scarcely known upon the map, while we had to look far and wide for the great towns and cities in the kingdom. There is sufficient in this stern fact to induce the inquiry whether, from want of careful adjustment of the existing machinery or want of fulfilment of original promises, we are not, to some extent, employing the public money in a way foreign to the original intention, viz., for the benefit of the mercantile houses of Leeds and Liverpool, and not upon education. I do not say that, in this case, the interest of the money is lost to the country, but it is at least transferred from the council office of education to the Board of Trade.

(*To be continued.*)

Notes of Lessons.

A SERIES OF LESSONS ON PENS.

I. Ancient Pens.

Pens, in olden times, were of two kinds, *iron styles* and the *reed*,—the former was chiefly used for writing on waxed tables, the latter for writing on papyrus with a fluid ink. The reed in size resembled a small round cane or swan's quill. They were obtained from Egypt, Cairo in Asia Minor, and Armenia. Reeds may be obtained around the Persian Gulf, from whence numbers are sent to the east, where they are cut and buried under dunghills, till they become of a black and yellow colour. When ready for use they are *hard*, the *pith* in the inside having been dried up by the heat of the earth, so as to be easily extracted, and so permit the ink to ascend the barrel. The Arabs use reed pens, as they are better than either quill or steel pens, for the formation of their letters.

1. Quill pens, as their name implies, are made from quills got from the goose, swan, crow, and sometimes from the ostrich and turkey; these pens are not in so much demand as they were formerly. The countries from which we get quills, are Russia, Poland, Germany, and the Netherlands. When quills were in good demand, England obtained 27,000,000 of quills in one year from St. Petersburgh. Each wing produces *five* quills, each goose in one year produces *twenty* quills, (because pulled twice). The second and third quills are the best.

2. Quills, when pulled, are covered with a membrane (soft substance), are also soft from the oil which they contain, have likewise a soft membrane

inside the barrel. By putting the quills into hot sand the outer membrane cracks and is scraped off with a sharp scraper, the inner membrane dries up, and can be easily drawn out, and the oily part isalso dried up, and the quills are hard and transparent. By being put into boiling water they are rendered still harder, and are ready for sending off. They are tied up in small bundles and sent to stationers, who sell them to those who wish to use them. The end of the barrel is then cut off, and the barrel is split up by a knife, making each side which forms the pen of an equal length.

Some quill pens are made in the same shape as steel pens, viz., the barrel of the quill is split into two parts, which are fixed in a groove, the edges are then smoothed with a plane, each part is then cut up into three or four smaller parts, which are put into a small cutting press. The knife then makes them ready for use. The ends of some of these pens are tipped with gold, silver, horn, &c., to make them more durable.

II. Modern Pens.

1. The pens chiefly in use in this country since 1803 (when Mr. Wise made steel pens which were fixed in bone cases, so as to be carried in the pocket), are steel pens. The first kind of steel pens were very costly and did not become very general. Mr. Gillott of Birmingham improved them by using better steel, thinner and more elastic, the slit was made shorter, and the finish and quality of the pen was altogether superior. A gross of this last kind cost little more than *one single pen* of the former. Messrs. Gillott and Perry brought the first kind of steel pen to its present form and make. Other kinds of pens were made, as the *oblique* and *three nibbed slit pen;* but these are not now in use.

2. The steel for making pens is rolled at Sheffield into thin plates; these are cut into slips *four* inches broad, and *three* feet long, and heated; the scales are removed by being placed in oil of vitriol; the strips are rolled again to their proper thickness. Girls are employed to cut the strips into small pieces called *blanks* or *flats*, in the direction of the grain of the steel. The *hole* at the end of the slit is then pierced and the pen smoothed, after which the blanks are again heated and the maker's name stamped on them, (the blanks still being flat.) They are passed to men who make them concave for *nib pens*, and form the barrel for *barrel pens*, by means of a small press; they are then put into a muffle, and heated red hot, and then cooled in oil, which is removed by being moved about in a tin-plate barrel. They are next tempered and then placed in a revolving cylinder with sand, in order to *brighten* them. The *nib* is next ground with great rapidity by a little girl who picks up each pen by small plyers, and finishes them by a touch on a wheel of emery. The *slit* is next made by a small chisel upon the bed of a press which has a chisel corresponding with the other. The pens are then *coloured* brown or blue by placing them in a revolving metal cylinder, over a charcoal stove. The pens are made *brilliant* by being placed in a solution of *lac* in *naphtha.* Pens are made at Birmingham. S. G.

Educational Intelligence.

LIST OF QUEEN'S SCHOLARS—(MALES).

(IN ORDER OF MERIT.)

CHRISTMAS, 1854.

First Class .. .. £25.

Davison, George, Cockermouth N. S.; Howitt, Charles, Lenton N. S.; Priestland, William, Measham N. S.; Moss, James, Manchester St. John's N.; S.; Heap, C. J., Charterhouse St. Thomas, N. S.; Cloran, Michael, Baldwin's Gardens N. S.; Wimperis, Hasper, Chelsea Park Chapel S.; Ford, William, Sheffield, St. Mary's N. S.; Ager, John R., Northampton, St. Sepulchre's.; Middlemas, Thomas F., Alnwick N. S.; Satterly, Charles Holmes, Devon and Exeter Central; Pratt, William, King's Somborne N. S.; Littlewood, Thomas M., Hathersage N. S.; Smith, Edward, Messingham N. S.; Sharpe, T. T., Measham N. S.; Cowdell, Samuel, Leicester Ch. Ch.; Thompson, Matthew, New Swindon Railway S.; Welch, Thomas, St. Marylebone Eastern N. S.; Cubbin, John, Port St. Mary (Isle of Man) N. S.; Best, Henry, Brighton, Warwick Street S.; Boyd, Joseph, Swinton Industrial S; Withers, Henry, Wilton N. S.; Briggs, William, Kibworth Harcourt Parochial S.; Sharley, George, Measham N. S.; Brown, Henry, Bungay N. S.; Gray, Philip Leman, Limehouse Wesleyan S.; Roberts, John, Swinton Industrial S.; Gledhill, Joseph, Bradford, St. James'; Webb, John, Wrockwardine N. S.; Pittway, Edward,Tewkesbury Trinty Iinfant S.; Alcock, Charles, Brailsford N.S.; Aldersley, F. S., Manchester Road Model School.; Robinson, J. H., Edgbaston N. S.; Vick, William, Cainscross N. S.; Topley, Nicholas, Brompton (Chatham) N. S.; Branston, Z. H., Old Dalby B. S.; Bennett, Thomas, Bentley (Hants) N. S.; Thomas, William, Haverfordwest N. S.; Thomas, John, Stoke-upon-Trent, N. S.; Swaine, Absalom R., Stothill N. S.; Oun, William, Nottingham, Trinity; Dawson, James. Manchester, St. John's S., Fancourt, George, Melton Mowbray Free S.; Pember, John, Kidderminster, St. Mary's N. S.; Ducker, George D., Derby, Trinity N. S.; Hunt, Frederick Goodman, Bethnal Green, Great St. James'; Emery, John, Chelsea, St. Luke's; Marden, Samuel, Drewsteignton (Devon); Roberts, R., Llangollen, N. S.; Veecock, James, Dorset Street (Portman Sq.), Portman S.; Yetley, J. H., Bradford, Walker's Factory S.; Emmerson, John, Islington, St. Peter's; Baker, George, Tandridge, Oxted and Godeton N. S.; Bowden, Edward R., Lymington N. S.; Loney, Solomon, Wellington; Reynolds, David, Benhall N. S.; Knowles, William, Tamworth, Sir Robert Peel's S.; Nash, William, Canterbury Model S.; Walters, George, Cranley. N. S.; Kaye, James, Rochdale, Belfield Hall, Messrs. Beneck's S.; Hutton, William, Radstock N. S.; Gardner, William, Stroud N. S.; Morphett, George, Westminster, St. James' N. S.; Pattinson, Thomas, Leadgate N. S.; Garraway, Francis, Spalding N. S.; Tate, Joseph, Portsea, All Saints' N. S.; Hall, John, Walmorsley Ch. Ch. S.

Second Class .... £20.

Payne, William, Chelsea, St. Luke's N. S.; Davis, Henry, Windsor (Liverpool), St. Clement's N. S.; Hampton, Hemming George, Kidderminster, St. Mary's N. S.; Gill, James. Kirkpatrick (Isle of Man) N. S.; Smith, George, St. Cuthbert's; Meeson, John Thomas, Hull, Christ Church N. S.; Wilson, Edwin, Beverley, St. Mary and St. Nicholas N. S; Robinson, John, Lowestoft, Wylde's S.; Long, John, Kidderminster, St. George's N. S.; Ashton, Philip, Carmarthen N. S.; Day, William, Ollerton N. S.; Maskrey, William, Osmaston N. S.; French, Robert J., Marylebone Western N. S.; Hibbs, James, Corfe Castle (Dorset) B. S.; Cole, George, Cheltenham, Trinity Infants; French, John Thomas, Bishopstoke N. S.; Owen, William, Conway N. S.; Tonance, George, Hastings, St. Clement's and All Saints N. S.; Crooks, John Henry, Derby, Christ Church N. S.; Weller, George. West Firle (Sussex) N. S.; Shoesmith, W. J., Burwash N. S.; Genner, Benjamin, Smethwick, Messrs. Chances' S.; Tolson, Paul, Earls Heaton (Dewsbury) N. S.; Appleby, William, Sheffield Park, St. John's N. S.; Cole, George H., Newton, Nottage N. S.; Bryant, William W, Clifton N. S.; Laing, W. W., Liverpool, St. Augustine's; Stoff, Charles H., Halifax, Trinity N. S.; Charnock George, Leeds, St. George's; Frost, William, Lowestoft, Annott's S.; Cretchley, William N., Dursley; Williams, James, St. Ewe N. S.; Madden, R., Holyhead N. S.; Bostock, D., Didsbury N. S.; Greenshields, James, Churchill and Sarsden N. S; Briggs, William, Wyke N. S.; Rearks, Daniel, Barham N. S.; Ball, Thomas, Christ Church S., near Stone; Pogson, Charles, Worksop Abbey N. S.; Mitchell, George, Dodworth Town S.; Marlow, William, Fareham, N. S.; Jones, Henry, Meliden N. S.; Willis, John P., Devonport, St. James N. S.; Morley, William, Sheepshead N. S.; Bower, Matthew, Meltham Mills N. S.; Payne, George, Cheltenham Old Charity; Paton, James, Westminster, St. James' N. S.; Bottomley, Dan, Wellingford N. S.; Hough, Thomas, Witton N. S.; Knowles, Wm., Halsal N S; Walsh, J., Bootle; Thorne, Jos., Calbourne, I. of W. N. S.; Collins, Jos., Coventry, St. Peter's N. S.; Cooper, Wm., Pershore N. S.; Helps, Wm., Chippenham; Harrap, T., Rotherhithe, Deptford-road N. S.; Fencott, Richard, Winchester, St. Thomas' N. S; Jenkin, Martin, Tresco (Scilly Isles) N. S.; Taylor, Thomas, Woolboro' and Highbeck N S.; Coe, Joshua Jonah, Devonport, St. James' N. S.; Mortimer, John, Bishops' Waltham N. S.; Ashcroft, William, Standish Endowed; Line, N. Charles, Salisbury N. S.; Thomas, Joseph, Eglwysfach N. S.; Fearnley, Erastus, Birstall N. S.; Samuel, William, Swinton Industrial S.; Cowell, C., Peel (Isle of Man) N. S.; Mercer, T. W., Toxteth (Liverpool) St. Thomas' N. S.; Taylor, Benton, Armitage Bridge; Sharpe, Richard, Southampton. St. Mary's N. S.; Fountain, Henry, Haggerstone, St. Mary's; Hornby, N., Liverpool; St. Luke's; Stead, William, Bramley Wes. S.; Johnson, W., Pudsey Low Town; Dyson, J., Slaithwaite N. S., (Lower); Dyson, W., Armitage Bridge; Smith, G. Smethwick, Messrs. Chances' S.; Timms, T., Nottingham, St. John's N. S; Slocombe, H. North Petherton N. S.; Lodge, Charles, New Leeds N. S.; Ridey, William, Central London District; Husbands, Robert, Sheepshed N. S.; Lakin, Edwin, Loughborough Wesleyan S.; Bunsaul, John, Plymouth, Charles S.; Beaumont, Thomas, Swavesey (St. Ives) N. S.; Ford, Matthew, Bloomsbury, St. George's; Day, W. S., Camberwell, Camden S.; Kidney, George, Southwark, St. George's N. S.; Jennings, John, Worcester, St. Peter's N. S; Howarth, Edwin, Belfield Hall, Messrs. Beneck's S.; Davis, John, Abergele N. S.; Lightburn, J. W., Liverpool, St. Bartholomew's; Scott, George, Middleton N. S.; Ward, William, St. Ive's N. S.; Long, Thomas, Manchester Road (Bradford) Model S.; Edwards, Thomas, Carnarvon Model S.; Large, James Joseph, Pimlico, St. Michael's; Miller, John, Oxford Blue Coat S.; Easton, George, Hagley N. S.; Jones, Lewis, Llandeusant N. S.; Hustler, Simeon, Low Moor (Bradford) N. S.; Nettleingham, William, Gravesend N. S.; Downing, S., Altarnum (Cornwall).

LIST OF QUEEN'S SCHOLARS—(FEMALES),

(IN ORDER OF MERIT).

CHRISTMAS, 1854.

First Class ... ... £16 13*s.* 4*d.*

Gregson, Sarah, Warrington Parochial S.; Bowmer, Lucy, Derby Curzon Street S.; Douglas, Anne P., Manchester Salford Ch. Ch. N. S.; Ball, Ann, Rotherham N. S.; Ruddle, Eliza, Trowbridge N. S.; Ramsden, Sabina, Leeds St. Philips N. S.; Allen, Margaret, Whittington N. S.; Smith, Sarah, Bolton le Moors, Emmanuel District S.; Smith, Emma, Derby Trinity Ch. S.; Poole, Hannah, Little Eaton N. S.; Wright, M. J., Birmingham St. George N. S.; Winch, Mary, St. Ippolyts, (Herts) N. S.; Higenbotham, S. A., Stockton-on-Tees Industrial S.; Booth, Lucy, Hulme St. Mark's N. S.; Stanley, Catherine, St. Mary Church, (Torquay) N. S.; Elwig, Emma, St. Ives N. S.; Moore, Margaret, Douglas St. George's N. S.; Hall, Alice, Derby Trinity Church S.; Ellis, Celia, Hastings St. Mary's N. S.; Hampson, S. A, Everton St. Chrysostom's N. S.; Brice, F., Whitstable and Seasalter Charity S.; Dow, Elizabeth, Southwark St. Mary's N. S.; Ainsworth, Mary, Heywood St. Luke's N. S.; Gilbert, Mary, Stockbridge N. S; Martin, S. J., Devon and Exeter Central S.; Wilcock, Emma, Bradford St. James's N. S.; Tetterton, Mary, Madely N. S.; Bradbury, Matilda, Sheffield Heeley N. S.; Masters, Catherine, Northampton St. Sepulchre's N. S.; Vincent, Ann, Bath Abbey, and St. James's Infant S.; Walker, M. A., Bradford (Yorkshire) N. S.; Addison, Alice, Croydon N. S.; Nichols, Jane, Tooting Parochial S.; Dowland, Agnes S., Shaftesbury N. S.; Payne, Ann, St. George's in the East, St. Mary's N. S.; Redhead, Emma, Wimbourne Minster N. S.; Hughes, Margaret, Carlisle Ch. Ch. N. S.; Henderson, Isabella, Seed Hill, (Huddersfield) N. S.; Devereux, E., Cheltenham Ch. Ch. Infant S.; Baker, Harriet, Bath Union Workhouse S.; Ingram, Harriet, Southwark St. Mary's N. S.; Sankey, Bella, Inskip N. S.; Tomlinson, M. T., Cheltenham Ch. Ch. Girls' S.; Ventham, M., Hereford Scudamore S.; Hindle, Anne, Preston St. Paul's N. S.; Morgan, S., A. Knighton N. S.; Blake, Eliza, Portsmouth Green Row N. S.; Truelove, M. A., Sheffield Park St. John's N. S.; Askham, Eliza, Sheffield St. Georges Girls N. S.; Broadbent, E., Bradford Manchester Road, N. S.; Burch, J. E., Heywood St. Luke's N. S.; Frost, Margaret, King's Lynn St. Margaret's Girls' S.; Taylor, Emma, Charterhouse St. Thomas' N. S.; Blee, E., St. Ippolyts N. S.; David, Margaret, Cardiff St. Mary's N. S.; Jones, Mary, Liverpool, Toxteth Park, St. Thomas' S.; Wilmot, Susan, Hatfield N. S.; Vickery, E. N., Westmeon N. S.; Birstwhistle, E., Swinton Industrial S.; Harvey, C. A., Church Lawton N. S.; Coldham, S, Dunchurch N. S.; Goldsworthy, Ann, Crowarn (Cornwall) N. S.; Payne, Caroline, Epsond N. S.; Hoare, Sarah, Axminster N. S.; Crawshaw, Sarah, Wentworth N. S.; Tatlock, Eliza, Liverpool Ch. Ch. N. S.; Pedlar, Ann, Milton Abbott Girls' S.

Second Class ... ... £13 6*s.* 8*d.*

Grindley, S. A., Manchester St. John's N. S.; Pitron, Susannah, Nuneham Oxford N. S.; Nolan, Elizabeth, Cheltenham Ch. Ch. Infant S.; Jones, M., Chirk N. S.; Broomfield, A., Kentish Town N. S.; Davies, E., Edge Hill (Liverpool) St. Mary's N. S.; Griffiths, Susan, Brecon St. Mary's N. S.; Dawson, Anne, Liverpool Ch. Ch. N. S.; Thomson, M. Kirwin, Preston, St. Paul's N. S.; Hopkins, Eliza, South Lambeth Spring Grove N. S.; Stevens, Eliza, St. Maurice, Winchester Girls' S.; Filmer, A., Stockwell St. Michael's N. S.; Furmiston, E., Chirk N. S.; Walton, H. E., Kingcross St. Paul's N. S.; Hollidge, Sarah, Kingston-on-Thames; Harvey, Louisa, Llanfures N. S.; Bottomley, M., Kingcross St. Paul's N. S.; Sims, Sarah Ann, Eumore Green (Shaftesbury) N. S.; Beams, Harriet, Mitcham N. S.; Dale, Alice, Rochester, St. Nicholas N. S.; Hart, Jane, Bolton-le-Moors Ch. Ch. N. S.; Roberts, Ellen J., Bath, Weymouth House Central N. S.; Powys, Emma, Stourport N. S.; Wheeler, Eliza, Kidderminster, St. Mary's N. S.; Weeks, Rhoda J., Exeter Episcopal Charity S.; Sharp, Emma, Tamworth N. S.; Chambers, L., Woodchurch N. S.; Sanderson, Annie, Sheffield Central N. S.; Jones, Elizabeth, Carnarvon Model S.; Weeks, M. A., Devon and Exeter Central S.; Holbrow, Hannah, Lyncombe (Bath) St. Mark's N. S.; Halling Elizabeth, Cheltenham Trinity N. S.; Allen, Emma, Bristol St. Michael's N. S.; Pike, Jane, Stepney, St. Thomas' N. S.; Harding, Sarah, Stockbridge N. S.; Hodgson, Ann, Oakworth N. S.; Morris, Elizabeth, Everton, St. Chrysostoms N. S.; Smith, Martha, Beighton N. S.; Thompson, Elizabeth, Culton St. John's N. S.; Andrews, M. E., Liverpool Ch. Ch. N. S.; Williams, M. E., Battersea N. S.; Hallett, M. L., Pimlico, St. Michael's N. S.; Crouch, Hannah, Marton Mortaine and Lidlington N. S.; Elworthy, Ann, Southwark, St. Mary's N. S.; Morley, Elizabeth, St. Erth (Cornwall) N. S.; Jones, Elizabeth, Carnarvon Model S.; Thurlow, Emma, Whitechapel, St. Mark's N. S.; Knight, Maria, Rugby, Elbrow's Charity S.; Brent, Mary, Kensal Green N. S.; Richards, M. A., Bristol, St. Michael's N. S.; McEwen, C., Sudbury B. S.; Small, Elizabeth, Taunton Central N. S.; Windcutt, S. W., Tiverton B. S.; Ambrose, S., Birkenhead, Trinity N. S.; Mollatt, Elizabeth, Church Lawton N. S.; Robinson, S., Salford Ch. Ch. Infant S.; Kearton, Margaret, Grassington N. S.; Barrow, Mary, Chapel-en-le-Frith N. S.; Sparrow, Maria, Halesworth Infant S; Lloyd, Eliza, Brecon St. Mary's N. S.; Stevens, Maria, Sheffield St. George's N. S.; Coombes, Jemima, Portsea Island Union S.; Lanridge, M. A., Kennington Oral N. S.; Jenkins, Caroline, Scilly Isles St. Mary's Infant S.; Trowbridge, Elizabeth, Lyncomb (Bath) St. Mark's N. S.; Porter, Emily, Boston B. S.; Woods, Anne, Bootle St. Mary's N. S.; Collins, M. C., Bootle, St. Mary's N. S.; Taylor, Anne, Hull, St. James's N. S.; Walker, Mary, Sheffield Central N. S.; Brookhouse, C., Derby Trinity Ch. S.; Maskell, Rose, Cookham Dean N. S.

LEEDS CHURCH OF ENGLAND SCHOOLMASTERS' ASSOCIATION.

The eighth annual meeting and dinner of this, one of the oldest associations, was held on Thursday, Dec. 21st, 1854, at the Royal Hotel, Leeds.

Mr. Jas. Bolton, of Horsforth, occupied the chair. The report for the past year was read by Mr. Thos. Holmes, the secretary, and unanimously adopted. It declared the society to be in a flourishing and prosperous state, and that the members had worked together with much unity of feeling in furthering the objects it was established to promote, and that, after paying all expenses, a small balance remained in hand. Assistant-masters have been admitted to the benefits of the association, and it is in contemplation to admit mistresses as members.

Mr. Thos. Holmes, of Leeds, was elected secretary, and Mr. G. Tinker treasurer, for the ensuing year.

At the monthly meetings papers on the following subjects have been read and discussed:—"On Instinct," by Mr. J. H. Lyne. "On School Organization," by Mr. J. W. Booth. "The Early Stages of the British Constitution," by Mr. Thomas Holmes. "On the Training of Pupil Teachers, with especial reference to School Management,'' by Mr. G. Carr. "Education and Educators since the Reformation," by Mr. G. Tinker. "The Early History of the East," by Mr. Campkin. "Mahomet and Mahometanism," by Mr. Bulson. "The Life and Times of Thos. A'Becket," by Mr. E. Spencer. "The Best Means of Maintaining Authority, and yet Securing the Sympathy and Affection, of the Children," by Mr. John. Thackeray.

After disposing of the official business, the remainder of the evening was spent in discussing the subject of popular education.

TESTIMONIALS.

At the anniversary Christmas tea-party, Dec. 26th, 1854, was presented, by the Rev. John Stock, M.A., incumbent of St. George's Church, Chorley, on behalf of the clergy and 70 teachers of St. George's Sunday Schools, to Mr. Thomas Brown, C.M., Blackie and Sons' Imperial Dictionary—two large volumes—as a mark of esteem and respect, and also as a small token that they appreciate his services as superintendent of St. George's Sunday Schools.

Mr. D. Fisher, after a service of nearly twenty years, has resigned his charge of the Corby British School, for a larger one in the city of Norwich. On leaving he was presented by the committee and pupils with a valuable testimonial in books.

On Monday, January 1st, a handsome silver tea-pot and cream-ewer were presented to Mr. T. P. Howe, who has been for fourteen years master of the Christ's Hospital School, Ipswich, by a number of his present and former scholars, as a mark of their affection and esteem.

NOTICES OF BOOKS.

Training in Streets and Schools, by W. Knighton, M.A.—Longman and Co.—It is a matter of regret that in the course of lectures given at the Educational Exhibition in St. Martin's Hall there were not distinct lectures by parties representing the principal systems or methods of education now current in the kingdom. Such lectures would have had a double advantage by removing misapprehension, and at the same time giving an authorised and permanent form to a kind of information much wanted. We believe we are correct in saying, that Mr. Knighton was the only lecturer who attempted, even indirectly, an exposition of a system of elementary instruction. It is hardly necessary to say that the "Training System" set forth is that known as the "Glasgow System." Of this system the lecturer may be taken as a fair exponent; in fact, no small part of the lecture is taken from Mr. Stow's Manual. It may, therefore, be recommended to those who desire a sketch of what that system proposes to be.

Mr. Knighton, in his advocacy, attempts in one or two cases to meet current objections. Thus, on the want of *collectiveness* in simultaneous instruction, the lecturer says, the system requires that "the children to whom these lessons are to be given should be as nearly as possible at the same stage of advancement;" this is a correct principle, though one may have some doubt of what is stated to be the result: "if the eyes of all be fixed on the teacher, in nine cases out of ten, whether all answer or not, the lesson will be received by all." But admitting the result, the question remains—How in ordinary schools the simultaneous instruction is to be given to children at the *same stage* of advancement? The lecturer thinks that with "any proper amonnt of attention" there will "be no such variety in their attainments as will materially interfere with this utility." With all deference to the lecturer, we think that in ordinary schools no amount of attention will overcome this great difficulty in applying the system advocated, and that the attempt to force it in small schools has done it damage.

The system has worked well at Glasgow, because of its large and almost unrivalled model schools, but the power of exact classification, so easy where there are eight hundred children in one establishment, becomes impossible where there are but eighty, and hence the point of classification, to which Mr. Knighton very properly attaches so much importance, is, by many Glasgow teachers, never attempted, and the whole of the children, ranging from the ages of four to fourteen, are placed upon the same gallery for simultaneous instruction. We maintain that such schools are not on the Glasgow system, and we are obliged to the lecturer for a certain sound on this matter, as it is a notorious fact, that many teachers in England, professing to teach on the system in question, seem to suppose that a *large* gallery, with all the children in it at one time, is *the* idea of Glasgow.

Mer-cur-ius, or the Word Maker, by the Rev. H. Le Mesurier, M.A.—Longman and Co.—Without committing ourselves to the doctrine taught in this book, it is only fair to say that we have read "Mer-cur-ius" with great interest. The writer, dissatisfied with the findings of Harris and Horne Tooke, has dug deep into the construction of words, and produced a work which cannot fail to interest and instruct, even where it does not carry the reader to the author's conclusions. Some notion of the idea proposed to be worked out may be gathered from the following extract:—"We find in the structure of language a two-fold element interspersed. Every grammatical word, in short, or perfect part of speech in its full constituent development, is a compound ot two particles at the least, of which the one is the sign of the bare idea, the other is the definitive of its grammatical properties. The one is an *objective* element, and expresses the subject-matter upon which the understanding is employed; the other is wholly *subjective*, and heterogeneous, and expresses a conception of the mind in relation to it. The aggregate of the one is the whole expressed matter, the other the whole expressed form of every sentence." Associations of Schoolmasters will do well in procuring this work. In it they will find not only curious disquisitions, but much valuable instruction on the elements entering into the composition of English words.

The Young Ladies' French Instructor, by Melle. Tiesset.—Whittaker and Co.—There is no lack of works which profess to initiate the tyro into all the perfections of the French language in periods so small that we care not to name them. Those who have tried need not be told that "French in one month" is an absurd pretension. The writer of the "Instructor" has more sober ideas, and devotes her efforts, for the most part, to give the pupil a knowledge of French idioms. This knowledge is applied both to epistolary correspondence and conversation. The earlier exercises are after the best method; a literal translation is first given, and then a comparison is made with the English idiom. A modification of the same plan is pursued through a series of letters on different subjects. This work is recommended by the fact of its having passed to a new edition in consequence of the request of those who have found it "a *very valuable auxiliary*."

Experimental Chemistry (*Gleig's Series*), *T. Tate.*—Longman and Co.—A thoroughly good book "for the use of beginners." Mr. Tate commences with the simplest elements and experiments, and advances to the more difficult, requiring a complete apparatus. The great merit of the book lies in correctness of method, simplicity of exposition, and numerous experiments and pictorial illustrations. At the end is given a list of chemicals and apparatus, with the price attached to each.

Botanical Primer, *No.* 2., *by T. English.*—Ward and Co – Small and unpretending, but full of valuable information. In reading it through we could not but be struck with the value of its contents to children in rural districts. Some knowledge of vegetation ought to fall within the range of the "common things" taught in country schools.

A Tabular View of the Classification of Animals and Vegetables, by W. B. Tegetmeier.—Darton and Co.—The compiler was formerly Lecturer on Natural History at the Home and Colonial School Society, and is therefore competent to produce a correct "Tabular View." He has done so with great tact. This sheet is decidedly the most complete we have seen, and has the advantage of being fully and correctly illustrated. There are few elementary schools where natural history is formally taught, but different parts are touched upon in most, either in gallery or reading lessons. Wherever this is done, the school apparatus will be incomplete without this sheet.

Correspondence.

SIR,—I have been a subscriber to your valuable "Papers" since they were called into existence, and have derived great benefit from them. Of late, since Schoolmasters' Associations have spread into almost all parts of this country, notices of the meetings of such Associations have regularly appeared in the "Papers." What I would propose is, that instead of the sometimes rather lengthy reports of these meetings being given, the Secretary should send for admission into the "Papers" some useful subject which has been discussed by the members of the association to which he belongs I have noticed very vital questions to schoolmasters, stated to have been discussed at these meetings, having been previously studied and written for the benefit of the members by some one appointed at the previous meeting. Now, if you could afford space for one subject, or lesson, each month, you would greatly benefit those who are not able to become members of Schoolmasters' Associations, and which would, I believe, increase the circulation of your already well-known "Papers." A SCHOOLMASTER.

SIR,—May I be allowed to answer the method of learning "Euclid," expounded by A. T. M., in your valuable periodical. I am exceedingly obliged to A. T. M. for the trouble he has taken to answer my query; but I must say "in his answer there are a few weighty objections to the pursuing of the method he so lucidly upholds."

In reply: Out of the great variety of arguments we find the "Propositions of Geometry" are demonstrated by the specie:—"Reductio ad Absurdum," "Superposition," and "Direct," respectively, of which the "Superposition" Proof is a species; the "Reductio ad Absurdum" being called "Indirect."

Now, it is quite evident that, in these three species of arguments, "Reflection" is the faculty cultivated. But "Reflection" is the "action of the mind upon itself," or "thought thrown back upon the past or absent on itself."

A. T. M. asserts "that the reasoning going on in the mind is assisted by the perception of the building up of the figure." But the figure is the effect of the operation of the mind upon the actions of the hands; therefore, in having the figure first constructed, the mind must have undergone the formula of construction, although these mental ideas are not expressed in words.

And again, when we proceed to "enunciate"—"repeat" the construction—and "demonstrate" the proposition, we subject the already-constructed figure (constructed mentally and manually) to "Analysis"—that great aid of reasoning development. Therefore, I consider, as yet, the method of having the figure constructed "before ever a word is spoken" to be preferable, inasmuch as both "construction" and "analysis" are dealt with; the one "mentally" a one, the other "mentally" and "orally."

It may be illustrated by these two modes of teaching spelling:—

1st Mode.—"Endeavour" for instance: E-n, *en;* d-e-a-v, *deav;* o-u-r, *our*—Endeavour.

2nd Mode.—E-n d-e-a-v o-u-r—*Endeavour*.

In the first method, it will be seen, each syllable is spelt separately, and one added to the other (the preceding), until the whole word is built up. In the second, a "pause" (almost imperceptible) is made after each syllable; but the names of the component syllables are not pronounced.

Now, without discussing the respective merits of each method, let us take by "Argumentum ad Verecundium," the authority of W. McLeod as proof, where, in his "Papers on Teaching to Spell," in the "Educator," he says "the second method is that which inculcates "Reflection," and "strengthens the mnemonical faculty."

G. H. F.

SIR,—Permit me, through the medium of your magazine, to direct attention to a question much agitated just now: the relative merits of the sol-fa method of Teaching Vocal Music.

The importance of this enquiry to the Schoolmaster will be obvious. The cultivation of Music is now a recognized part of popular education. Some knowledge of the principles of harmony is required in all Examinations for Certificates of Merit.

The study of Music is but very recently brought into this prominence, so that it is only to be expected that a deficiency should be found in the means of acquiring it. Confined to a profession, the forms of expression became technical, and the stereotyped mode of writing and teaching the art of song was judged necessary to its attainment. No other thing happens in respect to this than to every art.

Experience alone will commend any innovation. Prejudice, supported by the advantage of the best methods of teaching, having been adopted to bolster a system, in itself defective, must be expected long to impede the introduction of any new methods. Add to this, that those methods will be for some time crudely digested, and imperfectly exhibited—the practice confined to a few, and perhaps to those who, by some real defect in their natural gifts, incapable of surmounting difficulties presented by the old system it is intended to supersede.

All these, and many other difficulties in the way of the introduction of new methods into any science, have been encountered in many departments, and have all issued in the recognition of the superiority of recent methods, and the gradual consignment of the older to oblivion and disuse.

It is strange that this has not sooner taken place, in respect to a science so natural to man, so conducive to pleasure and improvement, as that of Music—that the old and barbarous notation, in use in the early ages, should be still retained with its monstrous faults of complication and confusion. The character in which any language is written has, as is well known to scholars, a very considerable effect (second only to that of the forms of its etymology) in accelerating or retarding literary progress. We all know how few will undertake the study of Arabic, or even of Hebrew itself (though the language of all others the most attractive), the sacred tongue; and is it not mainly attributable to the difficulty which meets the student at the outset, and promises to follow his progress throughout the pursuit? and, I think, you will allow that no other cause has prevented the language of melody becoming a popular acquisition.

It is not that the voices of men are impaired in quality or capability; it is not that there is less of occasion or inclinatian to the mirthful exercises of melody; it is not that there exists a lack of disposition to employ the labour necessary for every valuable acquirement.

The monster classes congregated under the skilful tutorage of Hullah—the thronging crowds at every public musical festival—the vocal excellencies of a Lind and a Lablache, and of a host of vocalists inferior only to these, surpassing all of all times before them, are a demonstration sufficient.

The non-cultivation of the science of song is attributable to some other causes, and none remain but those connected with the modes of instruction. Time is not lacking for the pursuit; means are within the reach of the majority, yet it is most rare to find among those, in whose education the study of music was not compulsory, an individual who has voluntarily surmounted the obstacles of the system of notation now in use.

With this long prefacing, Sir, I will say a few words to commend a new, and yet not a new, system of teaching, that adopted by Mr. John Curwen, in his "Grammar of Vocal Music," a truly philosophical and very cheap work on the science of music in general. The method is old, perhaps older then the very system it seeks to supplant. I will enter into its history in a future letter if you feel sufficient interest in this topic to pursue it further. Miss Glover, of Norwich, is the reviver of the system in its present form and use as a class system.

She proposes to employ the initials of the sol-fa syllables (long used by teachers of singing to exercise the voice and convey the idea of scale) as the only notation or means of representing musical sounds by writing. On this system the whole of an air is written as in the following lines:—

(1) s : m : d : s : : m : : f : s : l.t : d : r : t : : d : l : f : r : : t : : d : t : d : r : t : d : : d

(2) d : : d : d : t : : t : : d : d : t : d : :

No. 1, Jones' Chant, being the melody sung by children at the Festival in St. Paul's, celebrated for Haydn's commendation of the effect of the voices in unison, as the most overpowering he ever felt. No 2, a fine chant by Dr. Crofton.

I think I need add no commendation to the evidence already presented by the specimen adduced, together with the assurance that any child instructed in the system will, in a few months, be able to sing at sight, perfectly in respect of time and tune, either of the melodies above written.

Many of your readers will have had opportunities of hearing the public lectures which have been delivered on the subject by the zealous advocates of the system; and many will have classes near at hand where they may for themselves investigate the practical working of it. Those in London have advanced to a point of perfection perhaps never before reached by any class of singers, howsoever or by whomsoever instructed. I have myself heard a choir of one hundred voices singing in unison so perfect, that every word of a hymn could be distinctly heard by several thousand auditors. I have heard the same class, children under 15 years chiefly, sing at sight, and in public, an air never before seen by them. I learn, from recent reports, that the most advanced pupils will now set down from ear, after hearing for the first time, a melody quite new to them, and immediately afterwards sing it with correctness. This, I venture to say, is progress in music never attained, and not even attempted, by any class taught under the old notation. Moreover, I believe it impossible to attain to it under that method of teaching, while, under the new method, it is the natural result of instruction, and a stage which all diligent pupils will reach in course of time. The method has been in use only four or five years, and the classes I refer to about fifteen months or two years. I anticipate great improvements in the method of teaching, and that the confidence of the public will be accorded to it before long, so as to make it supersede in general favour all the methods previously in use. Of this, I think it cannot eventually fail.

The Government Inspectors cannot be expected to notice the new system till its general adoption has presented tests of its practical and scientific character. The student need not be deterred by the prospect of having to learn the old notation at any rate. This new one is found to be the readiest help to the acquisition of the other. It represents the same thing, but in a different manner; more suggestive and, therefore, more instructive and more easily learnt. All the books published by Mr. Curwen suppose the intention in pupils of learning the old notation by means of his own as an aid. My advocacy of this system may appear partial; but allow me to assure you, that it is that of a person no other way interested in promoting it, than as a part of the common good, which my profession as a Christian (if I were not a clergyman) would oblige me to. I have tried it myself, unable to teach on the other plan, or rather, unable to find children willing to go through the drudgery. My schoolmaster has learnt to sing and to play the organ without any other aid than that afforded by this system and my own instruction. I have a class of the most illiterate children, who have made very good progress, and sing almost at sight. Having, at the instance of my own correspondence, been admitted to the friendship of the amiable promoter of the movement in London, I am thoroughly convinced that the object of all concerned in it is purely a benevolent one, and free from any bias of a party or sectarian character; that it should be confined to any party, religious or otherwise, would be a great misfortune, and might give it a check and obstruct the advantages to be expected from its general spread. I ardently hope that the time of narrow-minded opposition of this kind is passed; that none will be willing to lend encouragement to it by entertaining suspicions, but investigating each proposition for improvement on its own merits. Whether it be conducive or not to the end in view, we will cordially adopt the best, and co-operate with all engaged in promoting it. Then shall we see the beautiful results of concerted movements, surpassing any exhibition yet achieved by labour, as far as those of which this century is the witness do all the ages when distrust and sepatism impoverished the world. Believe me to be,

Yours, with sincere goodwill,
MELOPHILOS.

ON TEACHING COMMON THINGS.

SIR,—In continuance of your excellent remarks on the "Common Things" so essentia to be taught in schools, are not the following remarks from the pen of an able writer much to the purpose?—"Specimen of common examination. Where is Kamschatka? How do the Laplanders prepare their food? What is a fixed star? Who is Prince Albert? What is Death said to ride in the Revelations? How much is 426 times 1247? Instead of the more natural interrogatories—What are the habits of an English labourer? How much flour and suet will make a pudding for six persons? How much cotton or linen will cut into five shirts? What remedies would you apply if a child were seized with cramp, and no medical help at hand? English education for the lower classes is at fault. We teach a smattering of subjects we ourselves find it extremely difficult to master and commit to memory, though we have what the poor have not—the habit of thought and the luxury of leisure; and then we send them into the world to begin lives of manual exertion, daily privation, retail purchases, and cottage industry, where every farthing wasted and lost is a drop of the poor man's blood drained away. Having taught them what is a fixed star! Who is Prince Albert! How dead bodies were embalmed in Egypt! and what is the meaning of doubling a promontory! we are amazed that they cannot keep house for John Diggory! we are annoyed that they cannot lay by like the ant, build like the beaver, and rear their broods as easily as chickens. We raise an angry outcry at the 'stupid improvidence of the poor,' whereas it is the stupid improvidence of the rich, We sow tares and we expect to reap wheat. The object of all training is to fit a person for the probable occupations and duties of life, yet it cannot be denied that we frequently attempt to teach the poor things which have as much reference to their future usefulness as if we gave them lessons in rope dancing."—*A Lover of Real Education.* S. S.

Examination Papers.

GENERAL EXAMINATION OF TRAINING SCHOOLS.

CHRISTMAS, 1854.—*(MALES—SECOND YEAR.)*

I.—THE ACTS OF THE APOSTLES.
II.—THE EPISTLE TO THE GALATIANS.

Three hours allowed for this paper.

SECTION I.

1. On what occasions was St. Peter cast into prison at Jerusalem, and under what circumstances was he set free? In what words did he address the Council on his second appearance before them?

2. Describe geographically the countries from which those persons came, who heard the Apostles preach on the day of Pentecost.

3. "And all that believed had all things common," (Acts ii. 44.) In what sense are the words "had all things common" to be received? Give scriptural grounds for your answer to this question.

SECTION II.

1. Relate, shortly, the history of the Church, between the conversion of St. Paul and the departure of Barnabas from Antioch to Tarsus to seek Saul, (Acts xi. 25.)

2. Give some account of the chronology of the Acts of the Apostles.

3. Have you any observations to make on the following passages?—

> "Which was with the deputy of the country Sergius Paulus," (Acts xiii. 7.)
>
> "Philippi which is the chief of that part of Macedonia and a colony." (Acts xvi. 14.)
>
> "For as I passed by and beheld your devotions I found an altar with this inscription To THE UNKNOWN GOD," (Acts xvii. 23.)

SECTION III.

1. What is recorded of St. Paul's last visit to Jerusalem?

2. What probable account may be given of St. Paul's labours during his confinement at Rome, and after his release?

3. What is known of the following persons mentioned in the Acts of the Apostles?—

> Apollons, Titus, Erastus, Aristarchus, Tychicus, Trophimus. Gallio, the high priest Ananias (Acts xxiii. 2), Herod the king (Acts xii. 1), King Agrippa (Acts xxv. 13.)

SECTION IV.

1. Describe Galatia geographically, and give some account of its history.

2. What is recorded in the Acts of the Apostles, concerning St. Paul's visit to Galatia?

3. "I marvel that ye are *so soon* removed from him that called you," (Gal. i. 6.) To what period does the expression "so soon" probably refer? Assign reasons for the answer you give to this question.

SECTION V.

1. What difference is observable in respect to the authority with which St. Paul addresses the Galatians and the Romans? How do yon account for the difference?

2. St. Paul does not in the Epistle to the Galatians lay done the doctrine of the Gospel *at large* as he does in that to the Romans. Assign a reason for this.

3. The church of the Galatians included *Jews* and Jewish *proselytes.* How does this appear from the Epistle?

SECTION VI.

1. "When the brethren knew, they brought him down to Cæsarea and sent him forth to Tarsus a city of Cilicia," (Acts x. 30.) What passage in the Epistle to the Galatians refers to this journey, and what argument may thence be derived for thinking that the journey in question was made by land?

2. "And I, brethren, if I yet preach circumcision, why do I yet suffer persecution? Then is the offence of the cross ceased," (Gal. v., ii.) Explain this passage and illustrate it by passages from the Acts of the Apostles.

3. "Then after three years I went up to Jerusalem to see Peter and abode with him fifteen days," (Gal. i. 18.) Prove from the Acts of the Apostles that St. Paul abode but a *short time* at Jerusalem on this visit, and show how he was employed.

SECTION VII.

1. Explain the following passages—

> "Brethren, if any man be taken in a fault ye which are spiritual restore such an one, in the spirit of meekness considering thyself lest thou also be tempted," (Gal. v. 1.)

"Brethren, I beseech you be as I am; for I am as ye are: ye have not injured me at all." (Gal. iv. 12.)

2. Explain the following passage—"Having begun in the spirit are ye now made perfect by the flesh?" (Gal. iii. 3.) In what sense are the words spirit and flesh used in this Epistle?

3. What reason is to be assigned for the use of the following words by St. Paul in the commencement of his Epistle?—"Paul an Apostle, *not of man* neither *by man*," (Gal. i. 1.) Give other passages in which he asserts his apostleship to have been derived immediately from Christ. From what other apostle was he distinguished in this respect?

MALES.—SECOND YEAR.

HIGHER MATHEMATICS.—No. I.

Three hours allowed for this paper.

SECTION I.

1. If the angle of a triangle be bisected by a straight line, which also cuts the base; the segments of the base shall have the same ratio which the other sides of the triangle have.

2. If two triangles have one angle of the one equal to one angle of the other, and the sides about the equal angles proportionals, the triangles shall be equi-angular, and shall have those angles equal which are opposite to the homologous sides.

3. If four straight lines be proportionals, the rectangle contained by the extremes is equal to the rectangle contained by the means, and conversely.

SECTION II.

1. To describe a rectilineal figure which shall be similar to one, and equal to another, given rectilineal figure.

2. To cut a given straight line in extreme and mean ratio.

3. If an angle of a triangle be bisected by a straight line which likewise cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square of the straight line which bisects the angle.

SECTION III.

1. Show that equal triangles on equal bases have equal altitudes, whether they be situated on the same or on opposite sides of the same straight line.

2. Divide a given straight line into two parts such that the squares of the whole and of one of the parts shall be equal to twice the square of the other parts.

3. From a given point without a circle, at a distance from the circumference of the circle not greater than its diameter, draw a straight line to the concave circumference which shall be bisected by the convex circumference.

SECTION IV.

1. Describe a levelling instrument. Explain the method of usimg it for determining the difference of level of two distant objects, and give an example of a level book, making the calculations indicated by it.

2. Prove the formula for determining the area of a triangle in terms of the sides.

3. There is a rectangular plot of land of two different qualities, one portion of it being worth £m, and the other £n per acre; the boundary of the two is a straight line whose intersections with the side and one end of the rectangle are at the same distance a from one of its angles. A portion of this land, of a given value £c, is to be cut off by means of a straight fence parallel to the end of the rectangle whose length is b. Where must this fence be drawn?

SECTION V.

1. Describe and explain the use of
   (*a*) The Vernier Scale.
   (*b*) The Prismatic Compass.

2. Give an example of a field book, lay down the corresponding field, and calculate its area.

3. Prove Thomas Simpson's rule for determining an area bounded by a curved line.

SECTION VI.

1. Given the meridian altitude of a heavenly body whose declination is known; show how the latitude of the place of observation may be found.

2. Given the mean time any place, and also the Greenwich time; explain fully how the longitude of that place may be found.

3. There are two points A and B, situated due north and south, $2l$ feet from one another; and there is a third point C, half way between them. Supposing l to be exceedingly small as compared with the radius of the earth, determine how much less a distance A is carried round in an hour by the rotation of the earth than C, and how much greater B. Apply the resulting formula to explain Foucalts Pendulum experiment.

MALES. — SECOND YEAR.

SCHOOL MANAGEMENT.

Three hours allowed for this paper.

Write the first line of your first answer as a specimen of copy-setting in *large hand;* and the first line in your second answer as a specimen of copy-setting in *small-hand.*

SECTION I.

Write a Theme on one of the following subjects.

1. The example of the teacher, however good in other respects, is of little avail unless love be the chief feature in it.

2. Other things besides the gravity of the offence are to be taken into account in the punishment of a child.

3. The teacher should be what the children ought to be.

SECTION II.

1. Show, by an example, how you would teach boys to write out a sum in the Rule of Three.

2. Show, by an example, how a sum in Subtraction of Decimals should be written out so as to show the reason of every step in the working of it.

3. Explain fully the method you woutd adopt in teaching book-keeping, and give examples of entries in the different books you would use.

Section III.

1. By what steps may a child best be led to form for itself the idea of a country from a map?

2. The Working Man's Geography has been described as the knowledge of things in other countries of like kind with those familiar to him in his own. Give the outline of a lesson in Geography according to this idea of it.

Section IV.

1. Show, by means of a diagram, and an example, what you think the best method of using the black board in teaching History.

2. What are the advantages of teaching History by centuries? Give the abstract of a lesson on some century of English History?

3. The Working Man's History has been described as "the knowledge of things in former times of like kind with those familiar to him in his own." Give the outline of an Historical lesson according to this idea of it.

Section V.

Write the abstract of a lesson on one of the following subjects:—

From the 4th Reading Lesson Book of the Irish Commissioners, Sections I and IV.

1. On the Nature and Habits of Quadrupeds.
2. On the Rich and Poor.
3. On Capital.

From the 4th Reading Lesson Book of the British and Foreign School Society,

1. On the Crusades.
2. On Rain and Snow.
3. On Mollusca.

005045

From McCulloch's "Course of Reading."

1. On Iron.
2. On Sulphur.
3. On Nitre.

Section VI.

1. Describe a group of desks and benches.
2. Describe a Gallery.
3. Describe (what has been called) the tripartite arrangement of a School.
4. Write out a few simple rules, with concise reasons for each, such as might be hung up in a Schoolroom without *ventilation*.

EXAMINATION FOR CERTIFICATES OF MERIT IN DECEMBER, 1855.

In addition to the fixed subjects of examination, advertised in an earlier number of this periodical, the following have been lately announced,—

First Year.

Holy Scripture.—The text of St. John's Gospel.

English Grammar.—To parse a passage from "the doctrine of the Hereditary Right to the British Throne," and "the History of the Succession of the British Monarchs," in Warren's extracts from Blackstone.

Second Year.

Holy Scripture.—The Epistle to the Romans.

English Composition, &c.—To paraphrase a passage from Milton's Paradise Lost, (Book iii.,) or from Shakspeare's Henry V.